This printed version of the Schedule of Classes is current as of 6/27/24 9:17 AM.

AAPS Academic Achievement Programs Fall 2023

AAPS380 **Fearless First: Negotiating the Hidden Curriculum in Higher Education and Other Societal Institutions**

(Perm req)

Restriction: Permission of Academic Achievement Programs.

This course examines the research and theory about first-generation college students and complicates the discourse around identity and experiences as a first-generation college student and the efforts made to expand access to higher education and major U. S. institutions. Moreover, the course will encourage students to use their strengths and cultural wealth, assets and values, along with introducing and expanding known cultural and social capital to successfully negotiate these institutional environments. Students who identify as first-generation are strongly encouraged to enroll.

0101	Sharon Vanwright W 4:00pm - 5:45pm Class time/details on ELMs	Seats (Total: 25) KEY 0103 ONLINE

AASP African American Studies Fall 2023

AASP100 **Introduction to African American Studies**

Significant aspects of the history of African Americans with particular emphasis on the evolution and development of black communities from slavery to the present. Interdisciplinary introduction to social, political, legal and economic roots of contemporary problems faced by blacks in the United States with applications to the lives of other racial and ethnic minorities in the Americas and in other societies.

0101	Shane Walsh MWF 10:00am - 10:50am	Seats (Total: 35) KEY 0116
0201	Shane Walsh MWF 12:00pm - 12:50pm	Seats (Total: 35) TYD 1108
0301	Shane Walsh MWF 2:00pm - 2:50pm	Seats (Total: 35) TYD 1118
0401	Jason Nichols TuTh 12:30pm - 1:45pm	Seats (Total: 30) KEY 0102
0501	Jason Nichols TuTh 11:00am - 12:15pm	Seats (Total: 35) HBK 0103

0601	George Kintiba	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	SKN 1115

AASP100H **Introduction to African American Studies**

Significant aspects of the history of African Americans with particular emphasis on the evolution and development of black communities from slavery to the present. Interdisciplinary introduction to social, political, legal and economic roots of contemporary problems faced by blacks in the United States with applications to the lives of other racial and ethnic minorities in the Americas and in other societies.

0101	Jason Nichols	Seats (Total: 5)
	TuTh 12:30pm - 1:45pm	KEY 0102

AASP101 **Public Policy and the Black Community**

Formerly: AASP300.

The impact of public policies on the black community and the role of the policy process in affecting the social, economic and political well-being of minorities. Particular attention given to the post-1960 to present era.

0101	Chinyere Osuji	Seats (Total: 37)
	TuTh 11:00am - 12:15pm	ONLINE

AASP187 **The New Jim Crow: African-Americans, Mass Incarceration and the Prison Industrial Complex**

Recommended: AASP100.

Students will examine the birth of the racial caste system following the abolition of slavery, the parallels between the racial hierarchy of the Jim Crow system and contemporary mass incarceration, and the rise of the prison industrial complex as a multi-billon business which thrives on the oppression of low-income populations and poor communities of color.

0101	Joseph Richardson	Seats (Total: 60)
	Tu 3:30pm - 6:00pm	HJP 2242

AASP200 **African Civilization**

A survey of African civilizations from 4500 B.C. to present. Analysis of traditional social systems. Discussion of the impact of European colonization on these civilizations. Analysis of the influence of traditional African social systems on modern African institutions as well as discussion of contemporary processes of Africanization.

0101	George Kintiba	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	TYD 1132

FC01	George Kintiba TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) KEY 0102

AASP202 **Black Culture in the United States**

The course examines important aspects of African American life and thought which are reflected in African American literature, drama, music and art. Beginning with the cultural heritage of slavery, the course surveys the changing modes of black creative expression from the 19th-century to the present.

0101	Ashley Newby MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 30) TYD 0101 ONLINE
0102	Ashley Newby MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 35) TYD 2111 ONLINE
0103	Robert Choflet TuTh 11:00am - 12:15pm	Seats (Total: 32) PLS 1119
0104	Robert Choflet TuTh 2:00pm - 3:15pm	Seats (Total: 35) TYD 2106

AASP202H **Black Culture in the United States**

The course examines important aspects of African American life and thought which are reflected in African American literature, drama, music and art. Beginning with the cultural heritage of slavery, the course surveys the changing modes of black creative expression from the 19th-century to the present.

0101	Ashley Newby MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 5) TYD 0101 ONLINE

AASP210 **Intro to Research Design and Analysis in African American Studies**

Introduces students to quantitative and qualitative research methods used in social science with a focus on Black populations and African American Studies Research. Uses practical exercises, such as class surveys and mock focus groups, to examine fundamental concepts of the research process from conceptualization of research questions to interpretation of data and research articles. The course is designed for undergraduate students with little or no background knowledge in social science research methods.

0101	Angelica Dunbar TuTh 9:30am - 10:45am	Seats (Total: 25) SKN 1115

AASP263 **Introduction to Black Women's Studies**

Cross-listed with: WGSS263. Credit only granted for: WMST263, AASP298I, WGSS263 or AASP263. Formerly: WMST263.

Interdisciplinary exploration of Black women, culture and society in the United States. Drawn primarily from the social sciences and history with complementary material from literature and the arts.

0101	Elsa Barkley Brown TuTh 11:00am - 12:15pm	Seats (Total: 40) ASY 3207

AASP265 **Constructions of Manhood and Womanhood in the Black Community**

Cross-listed with: WGSS265. Credit only granted for: WMST265, AASP298B, WGSS265 or AASP265. Formerly: WMST265.

Investigates the ways that African Americans are represented and constructed in public and private spheres and explores the social constructions and representations of Black manhood and womanhood from various disciplinary perspectives.

0101	Sharon Harley TuTh 2:00pm - 3:15pm	Seats (Total: 40) SQH 1117

AASP298C **African-American History to 1865**

Cross-listed with: HIST254. Credit only granted for: HIST254 or AASP298C.

Survey of the principal developments in the history and culture of the peoples of African descent in colonial North America and the United States to 1865. Examines the African past, the Atlantic slave trade, variation in slavery, the growth of free black communities, the transformations of families and cultural forms, and patterns of resistance.

0101	Christopher Bonner MW 2:00pm - 3:15pm	Seats (Total: 40) KEY 0116

AASP298L **African-American Literature and Culture**

Cross-listed with: ENGL234. Credit only granted for: ENGL234 or AASP298L.

An exploration of the stories black authors tell about themselves, their communities, and the nation as informed by time and place, gender, sexuality, and class. African American perspective themes such as art, childhood, sexuality, marriage, alienation and mortality, as well as representations of slavery, Reconstruction, racial violence and the Nadir, legalized racism and segregation, black patriotism and black ex-patriots, the optimism of integration, and the prospects of a post-racial America.

Cross-listed with ENGL234. Credit granted for AASP298L or ENGL234.

0201	Anthony Batts MWF 12:00pm - 12:50pm	Seats (Total: 30) TWS 0234

AASP301 **Applied Policy Analysis and the Black Community**

Prerequisite: AASP101. Recommended: Completion of one semester of statistics is recommended.

Development and application of the tools needed for examining the effectiveness of alternative policy options confronting minority communities. Review policy research methods used in forming and evaluating policies. Examination of the policy process.

0101	Cecily Jackson	Seats (Total: 25)
	TuTh 9:30am - 10:45am	KEY 0102

AASP313 **Black Women in United States History**

Restriction: Sophomore standing or higher. Cross-listed with: WGSS314. Credit only granted for: AASP313, WMST314 or WGSS314. Formerly: WMST314.

Black American women's history from slavery to the present. Focused on gaining a fuller understanding of the effect of race, class and gender on the life cycles and multiple roles of Black women as mothers, daughters, wives, workers and social-change agents.

For Fall 2020: Also offered as HIST329E. Credit granted for AASP313, HIST329E, or WMST314.

0101	Elsa Barkley Brown	Seats (Total: 40)
	Th 4:00pm - 6:30pm	KEY 0126

AASP320 **Poverty and African American Children**

Credit only granted for: AASP320 or AASP298P. Formerly: AASP298P.

The United States has high levels of child poverty compared to other industrialized nations. Poverty rates are particularly high among African American children. This course focuses on how poverty and race intersect to influence the development of children and youth. Specific topics that we will consider include definitions of poverty, theories about the causes of poverty, racial disparities in child poverty, family functioning in the context of poverty, neighborhood influences, risk and protective processes, and social policies and programs designed to mitigate the impact of poverty.

0101	Cecily Jackson	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TLF 0103

AASP350 **Cinema of the Black Atlantic**

This course examines cinema from the black Atlantic world, treating key films from Africa, the Caribbean, Latin America, and the United States. Anticolonial work by Ousmane Sembene and Sarah Maldoror, memory work by Haile Gerima and Julie Dash, and vernacular filmmaking by Charles Burnett, Spike Lee, Perry Henzell, Melvin Van Peebles, and others will introduce us to the varied concerns of Black filmmakers in moments of independence struggle and post-emancipation identity formation. While eclectic in selection, our examination of these films will be oriented around a pair of questions. What is antiblackness and how does cinema encounter, contemplate, and critique it? How do different geographies and historical experiences shift cultural and political concerns, as well as the methods of cinema along with those differing concerns? Such questions will allow us to see how questions of antiblackness and Black life operate in the between and overlapping spaces of colonial experience, ghettoization, and sites of resistance, rebellion, and radicalism.

0101	John Drabinski W 2:00pm - 4:30pm	Seats (Total: 25) WDS 1102

AASP386 **Experiential Learning**

(Perm req)

Restriction: Permission of BSOS-African American Studies department; and junior standing or higher.

0101	Marshal Washington F 2:00pm - 4:30pm	Seats (Total: 10) TLF 1102

AASP397 **Senior Thesis**

(Perm req)

Restriction: Permission of BSOS-African American Studies department.

Directed research in African American Studies resulting in the completion and defense of a senior thesis.

Contact department for information to register for this course.

AASP398G **Selected Topics in the African Diaspora; Gender, Labor and Racial Identities in Diaspora Communities**

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-listed with AMST328K. Credit only granted for AASP398G or AMST328K. Students will be exposed to a range of interdisciplinary perspectives, theories, and methodologies for exploring the intersectionality of gender, ethnicity, sexuality, and racial identities in multiple post-emancipation and modern African/Black diaspora communities. The class readings and discussions will examine the interactions and linkages between and among various African diaspora/descendant and native-born African American/Black peoples, from multiple vantage points, in different historical periods and movements in the U.S., Africa, the Caribbean, Latin American and Europe.

0101	Sharon Harley TuTh 11:00am - 12:15pm	Seats (Total: 30) SKN 1115

AASP398Q **Selected Topics in the African Diaspora; Black Baltimore in the Post Racial U.S: African American Urban Culture in the Age of Obama**

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-listed with AMST328M. Credit only granted for AASP398Q or AMST328M. Using the city of Baltimore as our case study and taking an interdisciplinary approach that draws from the scholarly fields of African American studies, sociology, geography, anthropology, history, and urban planning this course explores how both Blackness and anti-Blackness shape the city, its histories, its racial and cultural geography, its social movements, its political economy, and the competing visions for its future. This is an interactive course that will work to develop students capacity to understand and discuss major and minor moments in the history of Black Baltimore; understand and discuss the relationship between material conditions, racism, and urban policy; develop interdisciplinary frameworks through which to interpret and analyze the contemporary and historical conditions shaping the lived experiences of Black Baltimoreans; and analyze scholarship produced within the African American Studies tradition.

0101	Robert Choflet	Seats (Total: 30)
	W 3:00pm - 5:30pm	TYD 2109

AASP398Z **Selected Topics in the African Diaspora; Black Contributions to History**

Analysis of the historical experiences and cultures of Africans in the diaspora.

This survey course sheds light on forgotten ingenuity, stolen scientific, and ignored legacy from pharaonic Egypt to the scramble for Africa (1885) to modern Black groundbreaking contributions that have changed the world. While the archeological investigation is focused on the pan-African world, the course is designed to encourage students to delve into their creative and critical thinking skills and to view themselves as inventors and problem solvers. This course also challenges students to grasp inventions that have already taken place in a particular historical context and cultural pluralism, as well as helps them to comprehend and apply scientific principles in everyday life.

0101	George Kintiba	Seats (Total: 24)
	W 2:00pm - 4:30pm	TLF 1111

AASP399 **Research in African-American Studies**

(Perm req)

African American Studies research labs are the settings in which the most recent scholarly work of each faculty member takes place with the enterprise of conducting and disseminating research. Faculty members operate as the team leader and faculty mentor working with undergraduate students around a specific research topic or project. Students will have the opportunity to assist with reviewing literature, data gathering, data management, coding analysis, and the preparation of conference presentations and scholarly publications while advancing their own scholarship and interests, cultivating integrative skills, and gain training in a specialized aspect of the African American Studies discipline, which may not be otherwise available from other experiences on campus.

Contact department for information to register for this course.

AASP417 **Emotions and Culture in the African American Community**

Credit only granted for: AASP417 or AASP498E. Formerly: AASP498E.

Emotions are affective states, both positive and negative, that reflect an individual's continuous stream of experience. The goal of this course is to introduce students to the role of culture and racism in shaping the ways in which African Americans experience, express, understand, and control emotions on a behavioral, physiological, and psychological level. We will begin with exploration of historical influences such as the role of African culture on contemporary African American norms of expressivity and the role of antebellum slavery, the eugenics movement, and blackface on stimulating contemporary stereotypes about African American emotional temperament (e.g., stereotypes regarding aggressiveness, anger, and violence). We will conclude with discussions of the impact of discrimination on emotional and physiological reactivity and factors that promote emotional resiliency. The course materials will require students to grapple with the contemptuous disconnect between the African American cultural tradition of free emotional expressivity and the survival strategy to control emotions in response to a society threatened by Black emotionality.

0101	Angelica Dunbar	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TLF 0110

AASP498O **Special Topics in Black Culture; African American and Latino Social, Cultural and Political Relations: 1940 to Present**

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

Cross-listed with USLT498E. Credit granted for AASP498O or USLT498E. An examination of the social, cultural, and political relationships between African American and Latino/a/x communities. In doing so, we will explore identity conundrums such as what constitutes a Latino/a/x. Who is African American? This nation has rarely seen two groups often lumped together spatially and socially with a rich history of working together towards progress, so divided and contentious. We will also through the analysis of trends look to find points of mutual concern and possible convergence and political coalition. In this course, it will be necessary to examine residential patterns and segregation, as well as learn about Latin American political and racial formation. We also will examine Afro-latinidad, which complicates the sociopolitical landscape and relationship between African American and Latinx communities.

0101	Jason Nichols	Seats (Total: 30)
	W 4:00pm - 6:30pm	TYD 0102

AASP498Y **Special Topics in Black Culture; Black Queer Studies**

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

Cross-listed with LGBT448L. Credit only granted for LGBT448L or AASP498Y.

0101	Sydney Lewis MW 2:00pm - 3:15pm	Seats (Total: 30) SQH 2120

AASP499N **Advanced Topics in Public Policy and the Black Community; News Coverage of Racial Issues**

Examination of specific areas of policy development and evaluation in black and other communities. Application of advanced tools of policy analysis, especially quantitative, statistical and micro-economic analysis.

Restriction: Junior standing or higher.

0101	Anne Rosen TuTh 9:30am - 10:45am	Seats (Total: 25) KNI 3202

AAST Asian American Studies Fall 2023

AAST200 **Introduction to Asian American Studies**

Cross-listed with: AMST298C. Credit only granted for: AAST200 or AMST298C.

The aggregate experience of Asian Pacific Americans, from developments in the countries of origin to their contemporary issues. The histories of Asian Pacific American groups as well as culture, politics, the media, and stereotypes, viewed from an interdisciplinary perspective.

0101	Binod Paudyal TuTh 11:00am - 12:15pm	Seats (Total: 40) SQH 1101
0201	Jennifer Cho TuTh 2:00pm - 3:15pm	Seats (Total: 40) TYD 1114

AAST222 **Immigration and Ethnicity in the US**

Cross-listed with: SOCY322. Credit only granted for: AAST322, SOCY222, HIST322 or SOCY322. Formerly: AAST222, SOCY222.

Explores historical and contemporary Asian immigration to the US in comparison to and in the context of other immigrant groups. From low-skilled laborers to highly-skilled professionals, Asian and other immigrants have been an integral part of the shifting US economy and society since its inception. The course includes theories on why immigration occurs, determinants of its continuation, the uses of migrant labor, and immigrant adaptation and settlement. The second part of the course focuses on theories of ethnicity and racial formation and how immigrants develop and challenge the definitions of race, ethnicity, the "other", and ultimately, who is American. Students will also have the opportunity to gain first-hand knowledge of the immigrant experience through a life history interview project.

0101	Julie Park TuTh 9:30am - 10:45am	Seats (Total: 40) ASY 3203

AAST262 **Asian American Psychology**

Cross-listed with: PSYC262. Credit only granted for: PSYC262, AAST262 or PSYC489Z. Formerly: PSYC489Z.

An overview of how socio-cultural influences impact the development and psychological health of Asian Americans. Other topics include how minority group status, adaptation and identity development influence various aspects of psychological functioning; the role of historic systematic racism; and, how the COVID-19 pandemic has negatively impacted Asian Americans. Students develop a deeper understanding of the role of stereotypes and racism, acculturation, racial identity development, cultural values, gender socialization, behavioral norms, family roles, stressors and social support systems on the mental health, well-being and health of Asian Americans.

0101	Derek Iwamoto	Seats (Total: 59)
	TuTh 12:30pm - 1:45pm	TYD 1102

AAST298O **Special Topics in Asian American Studies; South Asian American Experience**

An introductory multidisciplinary and interdisciplinary educational experience to explore issues relevant to Asian American life, cultural experiences; and political, economic, and artistic development.

0101	Binod Paudyal	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	JMZ 0122

AAST351 **Asian Americans and Media**

Credit only granted for: AAST351, AAST398M or AAST398N. Formerly: AAST398M, AAST398N.

From yellow peril invaders to model minority allies, Asian Americans have crafted their own dynamic cultural expressions in a number of media from film, television, and music to fashion, sports, and food that reveal and contest the contradictions of the U.S. nation-state. Asian American culture also uniquely sits at the nexus of immigration flows and digital technologies, providing a transnational lens to view the US place in the world. This advanced course, then, will introduce students to the study and practice of Asian American cyktyre as multiple , hybrid, and heterogeneous. It will do so through three sections: section one will introduce students to classical, cultural, and media concepts as well as relevant keywords outlined by Asian American Studies scholars; section two will review the work of Asian American cultural theorists; section three will focus on analyses of particular Asian American cultural productions. In doing so, students will gain an understanding of the shifting and interlocking tensions among the local, the national, and the global that form the cultural geographies of Asian America.

0101	Binod Paudyal	Seats (Total: 30)
	TuTh 9:30am - 10:45am	SQH 1101

AAST355 **Asian Americans in Film**

Cross-listed with: AMST328W. Credit only granted for: AAST355, AAST398L or AMST328W. Formerly: 398L.

Explores how Asian Americans have historically been represented in the U.S. by Hollywood, and in turn, how independent and Hollywood Asian American filmmakers have represented themselves. It covers the history of racial, gendered, and sexualized representations of Asian Americans in Hollywood, as well as Asian American filmic responses within and outside Hollywood. It also introduces how four basic tools of film analysis mise-en-scene, cinematography, editing and sound work together to create meaning in moving images. It examines how these elements are put together in three different types of films by Asian American filmmakers: narrative, documentary, and experimental. How films function in society to circulate ideas that reproduce and challenge stereotypes about Asian Americans.

0101	Jennifer Cho TuTh 9:30am - 10:45am	Seats (Total: 30) SQH 1105

AAST363 **Filipino American History and Biography**

Cross-listed with: AMST323. Credit only granted for: AAST363, AMST323, AAST398D, or AMST328J. Formerly: AAST398D.

Focus is placed on Filipino American experiences with an emphasis on identity, community building and organizing to influence public policy We will cover pertinent events from the US and Philippine history in order to understand the impact of colonialism, migration, immigration and assimilation on Filipino Americans.

0101	Gemirald Daus Tu 5:00pm - 7:30pm	Seats (Total: 35) ARC 1105

AAST378 **Experiential Learning**

(Perm req)

Field experience/internship in professional organizations and appropriate private and governmental agencies serving the Asian American community.

0101	Janelle Wong Contact instructor or department for details.	Seats (Total: 5)

AAST388 **Independent Research**

(Perm req)

Directed, independent study in Asian American Studies resulting in the completion of an original research paper.

0101	Janelle Wong Contact instructor or department for details.	Seats (Total: 5)
0201	Binod Paudyal Contact instructor or department for details.	Seats (Total: 2)

0301	Julie Park Contact instructor or department for details.	Seats (Total: 2)
0401	Jennifer Cho Contact instructor or department for details.	Seats (Total: 2)

AAST394 **Growing Up Asian American: The Asian Immigrant Family and the Second Generation**

Cross-listed with: AMST324, IMMR394. Credit only granted for: AAST394, AAST398E, AMST324, AMST328V, IMMR319G or IMMR394. Formerly: AAST398E.

An interdisciplinary course examines the experiences of children of Asian immigrants in the U.S., focusing on intergenerational dynamics in the Asian immigrant family, their intersections with race, gender, class, sexuality, and religion, and how these shape second-generation Asian American life. Topics include identity and personhood, the model minority myth and education, work and leisure, language and communication, filiality and disownment, mental health and suicide.

0101	Joan Hong TuTh 3:30pm - 4:45pm	Seats (Total: 30) PHY 2211

AAST398Q **Selected Topics in Asian American Studies; Global Capitalism, Migration, Belonging**

Study of a specific theme or issue involving the Asian America experience.

Cross-listed with ENGL349A. Credit only granted for ENGL349A or AAST398Q.

0101	Rebecca Liu TuTh 5:00pm - 6:15pm	Seats (Total: 25) TWS 0221

AAST498G **Advanced Topics in Asian American Studies; Asian American Women and Gender**

Advanced study of the cultural and historical antecedents of contemporary Asian American society. Emphasis on the social, political, economic, and behavioral factors affecting Asian Americans and their communities.

0101	Jennifer Cho TuTh 11:00am - 12:15pm	Seats (Total: 20) SQH 1105

ABRM Anti-Black Racism Fall 2023

ABRM330 **Introduction to Anti-Black Racism**

Additional information: This interdisciplinary course will consist of two-week modules from key faculty/scholars in College of Behavioral and Social Sciences, College of Arts and Humanities, School of Public Health, School of Public Policy, and College of Education to explore how anti-Black racism operates in society.

This interdisciplinary course seeks to provide a broad overview of this rich and dynamic history. Built around the expertise of top UMD faculty in five colleges, this course will introduce students to the history and legacy of anti-Black racism from the perspective of multiple disciplines. In this course you will examine the development, spread, and articulations of anti-Black racism in the United States.

0101	Rashawn Ray, Jeanette Snider	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	ASY 1213

AGNR Agriculture and Natural Resources Fall 2023

AGNR200 **AGNR 2+2 Program Extended Orientation Seminar**

Prerequisite: Must be a first semester international student enrolled in the AGNR 2+2 Program. Restriction: Must be a first year international student enrolled in the College of Agriculture and Natural Resources 2+2 Program. Additional information: It is strongly recommended that AGNR 2+2 students take AGNR 200 during the first semester at the University. One class meeting per week. This courses is initiated by International Programs and will be coordinated in conjunction with the College of AGNR.

Introduces AGNR 2+2 students to University and "American" life. Assists with their successful transition to the College and Agriculture and Natural Resources and the University of Maryland. Helps students to understand their place in AGNR at to learn about the resources available to them.

0101	Ann Leger	Seats (Total: 25)
	M 4:00pm - 5:00pm	Location: TBA

AGNR301 **Sustainability**

Cross-listed with: PLCY301. Credit only granted for: AGNR301, PUAF301, or PLCY301. Formerly: PUAF301.

Designed for students whose academic majors would be enhanced by the complementary study of a widely shared but hard-to-operationalize aspiration: that present choices should preserve or improve future options rather than foreclose or degrade them. How should we understand sustainability? How might we achieve it? How would we know if we had achieved it? And how could sustainability activists of a rising generation lead by example?

0101	Caroline Boules	Seats (Total: 165)
	TuTh 12:30pm - 1:45pm	JMZ 0220

AGNR388 **Honors Thesis Research**

(Perm req)

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

0101	Joseph Sullivan	Seats (Total: 5)
	Contact instructor or department for details.	

AGNR499 **Special Problems; Special Problems**

(Perm req)

0102	Joseph Sullivan	Seats (Total: 1)
	Contact instructor or department for details.	

AGNR630 **Teaching-Learning in Adult and Continuing Education**

Formerly: AGRI630.

The teaching/learning process in adult continuing education. Instructional techniques and methodologies appropriate for adults. The curriculum development process. Issues and priorities in adult continuing education.

0101	Melissa Welsh	Seats (Total: 24)
	Class time/details on ELMs	ONLINE

AGST Agricultural Science and Technology Fall 2023

AGST130 **Did Yeast Create Civilization?**

Recommended: CHEM103, CHEM131, CHEM135, or CHEM146. Cross-listed with: PLSC130. Credit only granted for: AGST130 or PLSC130.

Did yeast create civilization? Fermented foods have played a major role in the transition from nomadic to settled agrarian societies, the establishment of social and religious customs, the expansion of empires, and modern economies. To what extent are our past and current attitudes towards fermented foods rooted in historical and cultural imprints? Explore the central role of fermentation in human history and culture, the basic microbiological processes underlying fermentation processes, and the processes used to produce and distribute fermented foods. Find out how the fruits, grains, and dairy products used to produce fermented foods are grown and selected. Students will learn about the development and modern use of fermented dairy products, pickles, bread, tea, chocolate, wine, beer, distilled liquors, and pharmaceutical/manufactured products.

This course is not hands-on and does not teach how to ferment food.

0101	Wendy Peer	Seats (Total: 53)
	Class time/details on ELMs	ONLINE

AGST307 **Mentorship in Agronomy and Career Exploration**

(Perm req)

Prerequisite: PLSC101 or (PLSC112 and PLSC113), PLSC407, ENST200, MATH113 or higher, and ENGL101. Recommended: ANSC101 and ANSC103. Restriction: Must be in the Agricultural Science and Technology-Agronomy major (0101A); and must have completed all prerequisite courses with a minimum grade of C-; and must have earned a minimum of 15 credits in the Agricultural Science and Technology Agronomy major; and sophomore or higher standing; and permission of AGNR-Department of Plant Sciences and Landscape Architecture.

An introduction to the Agronomy Mentor Program as well as an introduction to the broad spectrum of career opportunities in agronomic farming. This course is an overview of the Agronomy Mentor Program and students will have the opportunity to learn about various career paths in the agronomic farm industry. Presentations by industry leaders and discussions with farm professionals will be an integral part of this course. Following the completion of this course students will eligible to register for the Mentorship in Agronomy course (AGST308).

0101	William Phillips	Seats (Total: 8)
	W 9:00am - 9:50am	PLS 1125

AGST308 **Continuing Mentorship in Agronomy and Career Exploration**

(Perm req)

This course is a continuation of the Mentorship in Agronomy and Career Exploration (AGST307).

Restrictions: Sophomore standing and AGST-Agronomy only.

Contact department for information to register for this course.

AGST333 **Crafty Beverage Crops**

Recommended: PLSC110 or PLSC112; or 1 course in BSCI, BCHM, BIOL.

From soda to wine, a scientific introduction to "crafty beverage crops". Students will expand their horticulture knowledge and gain an appreciation for craft beverages and the plants that made them. Topics include history, biology, production and management techniques, harvest, storage and market potential for crafty beverage crops.

0101	Diana Cochran	Seats (Total: 60)
	Tu 3:30pm - 4:45pm	ONLINE
	Class time/details on ELMs	ONLINE

AGST426 **Scientists Teaching and Translating Science**

Credit only granted for: AGST426 or PLSC489L. Formerly: PLSC489L.

Explore methods in pedagogy, andragogy, and heutagogy to facilitate science learning through the development of a teaching philosophy, outreach teaching skills, motivation in learning, assessment foundations, and review of current literature on instruction in science fields.

0101	Melissa Welsh	Seats (Total: 30)
	W 1:00pm - 2:50pm	PLS 2137
	Class time/details on ELMs	ONLINE

AGST440 **Exploring Maryland Agriculture, Agricultural Industry, and Agricultural Literacy**

Explore the mission and history of the Land Grant System as well as current work conducted through the University of Maryland to extend research to citizens. Often referred to as America in miniature, Maryland boasts diverse people, agricultural practices, cultures, and ecosystems which students will examine to perceive the decision making processes within and across ecological systems as well as the development of advisory boards.

0101	Melissa Welsh	Seats (Total: 24)
	MW 3:30pm - 5:00pm	PLS 2137

AGST640 **Analysis of Maryland Agriculture**

An advanced research focused course on examining the mission and history of the Land Grant System as well as appraising the current work conducted through the University of Maryland Extension to extend research to citizens. Often referred to as America in miniature, Maryland boasts diverse people, agricultural practices, cultures, and ecosystems which students will examine to perceive the decision making processes within and across ecological systems. An enriching field practicum with an agricultural agency is required.

0101	Melissa Welsh	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

AGST699 **Independent Studies in Agricultural Science and Technology**

(Perm req)

An inquiry based learning course with individualized advanced projects designed by graduate student and faculty focused on: research projects in Agricultural Science and Technology including field, greenhouse, laboratory, educational site, travel abroad and/or library studies. Conducted under the direction of a faculty member.

Contact department for information to register for this course.

AGST799 **Master's Thesis Research**

(Perm req)

Development of a terminal thesis on a problem in extension education, designed to demonstrate comprehensive skills and knowledge achieved in the graduate program. The subject will be selected in consultation with an advisor and periodically reviewed with a committee headed by the advisor.

Contact department for information to register for this course.

AMSC Applied Mathematics & Scientific Computation Fall 2023

AMSC460 **Computational Methods**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH246. Cross-listed with: CMSC460. Credit only granted for: AMSC460, AMSC466, CMSC460, or CMSC466.

Basic computational methods for interpolation, least squares, approximation, numerical quadrature, numerical solution of polynomial and transcendental equations, systems of linear equations and initial value problems for ordinary differential equations. Emphasis on methods and their computational properties rather than their analytic aspects. Intended primarily for students in the physical and engineering sciences.

0101	Tobias von Petersdorff MWF 11:00am - 11:50am	Seats (Total: 35) MTH B0421
0201	Stefan Doboszczak MWF 12:00pm - 12:50pm	Seats (Total: 35) MTH 0101
0301	Ling Liang TuTh 12:30pm - 1:45pm	Seats (Total: 25) MTH 0103
0401	Ke Chen TuTh 2:00pm - 3:15pm	Seats (Total: 25) MTH 0403

AMSC466 **Introduction to Numerical Analysis I**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH410. Cross-listed with: CMSC466. Credit only granted for: AMSC460, CMSC460, AMSC466, or CMSC466.

Floating point computations, direct methods for linear systems, interpolation, solution of nonlinear equations.

Click here for more course information.

0101	Dionisios Margetis TuTh 11:00am - 12:15pm	Seats (Total: 30) PLS 1111

AMSC498A **Selected Topics in Applied Mathematics**

(Perm req)

Topics in applied mathematics of special interest to advanced undergraduate students.

Contact department for information to register for this course.

AMSC660 **Scientific Computing I**

(Perm req)

Prerequisite: Must have knowledge of Matlab or Python. Cross-listed with: CMSC660. Credit only granted for: AMSC660 or CMSC660.

Fundamental techniques in scientific computation with an introduction to theory and software for each topic. Computer numbers and sources of errors, numerical linear algebra, optimization, and Monte Carlo methods.

0101	Maria Cameron	Seats (Total: 38)
	MWF 12:00pm - 12:50pm	EGR 0135

AMSC673 **Partial Differential Equations I**

Prerequisite: MATH411; or students who have taken courses with comparable content may contact the department. Cross-listed with: MATH673. Credit only granted for: AMSC673 or MATH673.

Analysis of boundary value problems for Laplace's equation, initial value problems for the heat and wave equations. Fundamental solutions, maximum principles, energy methods. First order nonlinear PDE, conservation laws. Characteristics, shock formation, weak solutions. Distributions, Fourier transform.

Offered fall only. Cross-listed with MATH673.

0101	Huy Nguyen	Seats (Total: 20)
	MWF 2:00pm - 2:50pm	CHM 2201

AMSC689 **Research Interactions in Applied Mathematics and Scientific Computation**

(Perm req)

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

AMSC698D **Advanced Topics in Applied Mathematics; Fast Multipole Methods: Fundamentals and Applications**

Cross-listed with CMSC878B. Credit only granted for CMSC878B or AMSC698D.

0101	Ramani Duraiswami	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	CSI 1121

AMSC721 **Mathematical Population Biology**

Prerequisite: Calculus, differential equations, modeling, linear algebra, familiarity with mathematical software and programming languages (e.g., MATLAB, R, Python etc.); or permission of instructor. Cross-listed with: BIOL721. Credit only granted for: AMSC721 or BIOL721. Additional information: Open to advanced undergraduates by permission of instructor.

Foundational principles for modeling and analysis of real-life phenomena in population biology. Topics include design and analysis of models for general classes of unstructured (single species discrete-time and continuous-time, interacting populations etc.) and structured (spatially-structured, age- structured, sex-structured) population biology models in ecology and epidemiology, dynamics analysis of population biology models (asymptotic stability and bifurcation theory), numerical discretization of continuous-time models, statistical analysis (parameter estimation, uncertainty quantification).

0101	Abba Gumel	Seats (Total: 20)
	TuTh 9:30am - 10:45am	MTH 0104

AMSC760 **Applied Statistics Practicum**

(Perm req)

Prerequisite: Must have completed one year of graduate study in Applied Statistics. Restriction: Must have project proposal approved by SAC coordinator.

A semester long applied applied statistical project (a minimum 10 hours per week or 120 hours in total), in an internship of collaborative research-laboratory setting working on a substantive applied quantitative project with significant statistical content.

0101	Howard Elman	Seats (Total: 10)
	Contact instructor or department for details.	

AMSC762 **Data Analysis Project**

(Perm req)

Restriction: Permission of CMNS-Applied Mathematics department; and permission of instructor.

This course cannot be used to meet any of the Applied Statistics Area's seminar requirements. Offered yearly, required of and limited to MS non-thesis and doctoral students in Applied Statistics Area, for whom the resulting projects serve as a Qualifying Exam component. After 5-6 lectures or presentations on components of successful data analyses and write-ups, 3-4 sessions will discuss previous student project submissions. The culminating project, to be completed in a two week period between semesters, is an analysis and written report of one of three project choices made available each year to represent a spectrum of realistic applied statistical problems.

0101	Howard Elman	Seats (Total: 15)
	Contact instructor or department for details.	

AMSC763 **Advanced Linear Numerical Analysis**

Prerequisite: AMSC666 or CMSC666; or permission of instructor. Cross-listed with: CMSC763. Credit only granted for: AMSC600, AMSC763, CMSC760, or CMSC763. Formerly: AMSC600 and CMSC760.

Advanced topics in numerical linear algebra, such as dense eigenvalue problems, sparse elimination, iterative methods, and other topics.

0101	Howard Elman TuTh 9:30am - 10:45am	Seats (Total: 35) CSI 3118

AMSC799 **Master's Thesis Research**
Contact department for information to register for this course.

AMSC808A **Advanced Topics in Applied Mathematics**

Advanced topics of current interest.

Contact department for information to register for this course.

AMSC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

AMSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

AMST American Studies Fall 2023

AMST101 **Introduction American Studies**

Credit only granted for: AMST101 or AMST201. Formerly: AMST201.

Introduces students to the interdisciplinary field of American Studies by examining concepts such as culture, identity, cultural practices, and globalization, as well as theories underlying these concepts. Engages key themes, especially constructions of difference and identity, cultures of everyday life, and America and the world.

0101	Christina Hanhardt MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 15) SQH 1120 TWS 0330	 Discussion
0102	Christina Hanhardt MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 15) SQH 1120 TWS 0330	 Discussion
0103	Christina Hanhardt MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 15) SQH 1120 TWS 0134	 Discussion
0104	Christina Hanhardt MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 15) SQH 1120 TWS 0134	 Discussion

FC01	Carla Thomas Mcginnis F 10:00am - 11:15am Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 15) TWS 0328 ONLINE	Discussion

AMST202 **Cultures of Everyday Life in America**

Examine the structures and patterns of everyday life in the U.S., utilizing methods such as ethnography, oral history, survey research, and textual, visual, and material cultural analysis.

0101	Kristine Li Puma MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TWS 0134 ONLINE	Discussion

AMST203 **Popular Culture in America**

An introduction to American popular culture, its historical development, and its role as a reflection of and influence on our culture and society.

0201	Jung Kim MW 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 25) TWS 0134 ONLINE	Discussion
FC01	Jung Kim F 1:00pm - 2:15pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 18) TWS 0328 ONLINE	Discussion
FC02	Devon Betts F 11:30am - 12:45pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 18) TWS 0328 ONLINE	Discussion

AMST204 **Film and American Culture Studies**

Exploration of the American film from a historical perspective, illustrating the motion picture's role as an institutional phenomenon, as a form of communication, and as a source of cross-cultural study.

0101	Susan Pramschufer TuTh 9:30am - 10:45am	Seats (Total: 35) TWS 0236	

AMST205 **Material Aspects of American Life**

Historical survey of American material culture. Ways of describing and interpreting accumulated material evidence (e.g., buildings, town plans) introduced by stressing relationship between artifact and culture.

FC01	Mateo Arango F 11:30am - 12:45pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 18) SQH 2113 ONLINE	Discussion
FC02	Melodie Jackson F 9:30am - 10:45am Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 18) EDU 2102 ONLINE	Discussion

AMST262 **Houses, Schools, and Prisons in American Life**

This interdisciplinary course explores the role of property, discipline, and punishment in American life. By exploring the ideological underpinnings in property, discipline, and punishment and their manifestations in houses, schools, and prisons we will explore how these entities reflect American society and its values.

0101	Perla Guerrero MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 15) TWS 1310 TWS 0134	Discussion
0102	Perla Guerrero MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 15) TWS 1310 TWS 0330	Discussion
0103	Perla Guerrero MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 15) TWS 1310 TWS 0330	Discussion
0104	Perla Guerrero MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 15) TWS 1310 TWS 0134	Discussion

AMST298Q **U.S. Latinx Literature and Culture**

Cross-listed with: ENGL235. Credit only granted for: ENGL235 or AMST298Q.

Examines the poetry, prose, and theater of Latinx communities in the United States from their origins in the Spanish colonization of North America to their ongoing development in the 21st century. Considers how authors use literary form to gain insight into human experience, including mortality, religious belief, gender and sexuality, war and peace, family, language use, scientific inquiry, cultural tradition, ecology, and labor. Also studies how Latinx literary traditions have shaped and been shaped by broader currents in American literature, as well as what connections exist between Latinx literature and social and artistic developments in other parts of the world, particularly Latin America and the Caribbean. Authors may include Alvar Nunez Cabeza de Vaca, Eulalia Perez, Juan Nepomuceno Seguin, Maria Amparo Ruiz de Burton, Jose Marti, Arthur A. Schomburg, Jesus Colon, Julia de Burgos, Cesar Chavez, Ariel Dorfman, Gloria Anzaldua, Junot Diaz, and Cristina Garcia.

0101	Sarah Dammeyer	Seats (Total: 30)
	MW 5:00pm - 6:15pm	TWS 0214

AMST310 **Introduction to Comparative Ethnic and Racial Studies**

Cross-listed with: AAST310. Credit only granted for: AMST310, AAST398F, AAST310, or AMST328L. Formerly: AMST328L and AAST398F.

Introduces students to the study of race and ethnicity in the United States. The class is organized according to the following five units: (1) Introduction; (2) Key concepts; (3) Mechanisms of racial formation; (4) Prevailing myths about race; and (5) Contemporary issues related to race and ethnicity. Through readings, film clips, and presentations, we will explore how the concept of race has developed and endured over time and become familiar with key concepts, such as "race" and "intersectionality". We will attempt to better understand how race is associated with other forms of difference, such as class, gender and ethnicity. We will identify and confront the prevailing myths about race and ethnicity in the United States. Finally, we examine the ways in which contemporary issues reveal the dynamics of race and ethnicity.

0101	Bayley Marquez	Seats (Total: 26)
	TuTh 11:00am - 12:15pm	KEY 0102

AMST312 **Introduction to Native American and Indigenous Studies**

Credit only granted for: AMST328N, ANTH468F, RELS319N, or AMST312. Formerly: AMST328N, ANTH468F, or RELS319N.

Key concepts and theories in Native American Studies beginning with an overview of the field and some of its foundational readings and history, then will move into an understanding of Native American identity and representation and a discussion of Indigenous sovereignty and self-determination. The course will outline past and present genocidal practices that seek to eliminate Native people and Indigenous responses to those structures such as the concept of survivance, Native feminisms, and theories of Indigenous resurgence. The course seeks to move students through an understanding of past and present structures affecting Native American people in the United States and Canada and move into readings that highlight Native articulations of present and future agency. While the focus of the course is Native peoples with the United States and Canada, understanding Indigenous histories and concepts always includes a hemispheric and transnational analysis.

0101	Devin Thompson Elutrio, Bayley Marquez	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TWS 0328

AMST315 **Religion in American Culture**

Recommended: AMST101. Credit only granted for: AMST315 or AMST328R. Formerly: AMST328R.

Introduces students to the world's major religious traditions and examines how American culture informs, and is informed by, the variety of religious beliefs and practices in the U.S. This course is primarily concerned with religion as a system of meaning. The focus of the course is not on the history of religion or on analysis of religious texts, but rather on the meaning of a religion to its believers.

0101	Asim Ali	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TWS 0330

AMST320 **(Dis)ability in American Film**

Credit only granted for: AMST320 or AMST328X. Formerly: AMST328X.

Explores the connection between film and disability through an analysis of independent and mainstream American films in various film genres. Specifically, we will consider how these film representations reflect and/or challenge the shifting social perspectives of disability over the 20th and 21st centuries. Beginning with the presentation of disability as theatrical spectacle in the traveling sideshow and early cinema, we will work our way through film history to develop an understanding of our society's complicated relationship with disability.

0101	Susan Pramschufer	Seats (Total: 21)
	TuTh 11:00am - 12:15pm	ARC 1103

AMST324 **Growing Up Asian American: The Asian Immigrant Family and the Second Generation**

Cross-listed with: AAST394, IMMR394. Credit only granted for: AAST394, AAST398E, AMST324, AMST328V, IMMR319G or IMMR394. Formerly: AAST398E.

An interdisciplinary course examines the experiences of children of Asian immigrants in the U.S., focusing on intergenerational dynamics in the Asian immigrant family, their intersections with race, gender, class, sexuality, and religion, and how these shape second-generation Asian American life. Topics include identity and personhood, the model minority myth and education, work and leisure, language and communication, filiality and disownment, mental health and suicide.

0101	Joan Hong	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	PHY 2211

AMST328C **Perspectives on Identity and Culture; Race and the Story of American Freedom**

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Together, we will explore these and many other questions as we survey American history while emphasizing the ways ethnic and racial minoritieshave shaped American identity from pre-historic times through the present. By examining or re-examining American history through the lens of these and other racial and ethnic groups we will develop an understanding of key concepts and definitions such as race/class/gender;ethnic group, racial group, minority/majority; institutional racism; social construction of race versus biological construction, resistance, and change.

0101	Jamila Moore-Pewu	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

AMST328D **Perspectives on Identity and Culture; Detention, Deportation and Displacement**

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Cross-listed with AMST328D. Credit only granted for USLT328D or AMST328D.

0101	Perla Guerrero	Seats (Total: 25)
	MW 3:00pm - 4:15pm	TWS 0134

AMST328K **Perspectives on Identity and Culture; Gender, Labor and Racial Identities in Diaspora Communities**

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Cross-listed with AASP398G. Credit only granted for AASP398G or AMST328K. Students will be exposed to a range of interdisciplinary perspectives, theories, and methodologies for exploring the intersectionality of gender, ethnicity, sexuality, and racial identities in multiple post-emancipation and modern African/Black diaspora communities. The class readings and discussions will examine the interactions and linkages between and among various African diaspora/descendant and native-born African American/Black peoples, from multiple vantage points, in different historical periods and movements in the U.S., Africa, the Caribbean, Latin American and Europe.

0101	Sharon Harley	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	SKN 1115

AMST328M **Perspectives on Identity and Culture; Black Baltimore in the Post Racial U.S: African American Urban Culture in the Age of Obama**

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Cross-listed with AASP398Q. Credit only granted for AASP398Q or AMST328M. Using the city of Baltimore as our case study and taking an interdisciplinary approach that draws from the scholarly fields of African American studies, sociology, geography, anthropology, history, and urban planning this course explores how both Blackness and anti-Blackness shape the city, its histories, its racial and cultural geography, its social movements, its political economy, and the competing visions for its future. This is an interactive course that will work to develop students capacity to understand and discuss major and minor moments in the history of Black Baltimore; understand and discuss the relationship between material conditions, racism, and urban policy; develop interdisciplinary frameworks through which to interpret and analyze the contemporary and historical conditions shaping the lived experiences of Black Baltimoreans; and analyze scholarship produced within the African American Studies tradition.

0101	Robert Choflet	Seats (Total: 30)
	W 3:00pm - 5:30pm	TYD 2109

AMST328W **Asian Americans in Film**

Cross-listed with: AAST355. Credit only granted for: AAST355, AAST398L or AMST328W. Formerly: 398L.

Explores how Asian Americans have historically been represented in the U.S. by Hollywood, and in turn, how independent and Hollywood Asian American filmmakers have represented themselves. It covers the history of racial, gendered, and sexualized representations of Asian Americans in Hollywood, as well as Asian American filmic responses within and outside Hollywood. It also introduces how four basic tools of film analysis mise-en-scene, cinematography, editing and sound work together to create meaning in moving images. It examines how these elements are put together in three different types of films by Asian American filmmakers: narrative, documentary, and experimental. How films function in society to circulate ideas that reproduce and challenge stereotypes about Asian Americans.

0101	Jennifer Cho	Seats (Total: 30)
	TuTh 9:30am - 10:45am	SQH 1105

AMST340 **Introduction to History, Theories and Methods in American Studies**

(Perm req)

Prerequisite: Must have completed AMST201; and 2 courses in AMST. Restriction: Must be in American Studies program; and sophomore standing or higher.

Introduction to the process of interdisciplinary research, including research literatures, questions, first-hand sources and library and analytic methods in American Studies. Each student will craft a prospectus for original research.

0101	Asim Ali	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TWS 0330

AMST386 **Experiential Learning**

(Perm req)

Restriction: Permission of ARHU-American Studies department; and junior standing or higher.

0401	Jamila Moore-Pewu	Seats (Total: 10)
	Contact instructor or department for details.	

AMST388 **Honors Thesis**

(Perm req)

Individual research, thesis and oral defense. The research project will be conducted under the supervision of a faculty member.

Contact department for information to register for this course.

AMST398 **Independent Studies**

(Perm req)

Provides the student with the opportunity to pursue independent, interdisciplinary research and reading in specific areas of American culture studies.

Contact department for information to register for this course.

AMST418H **Cultural Themes in America; Cultural Themes in America-Honors**

(Perm req)

Examination of structure and development of American culture through themes such as "growing up American," "culture and mental disorders," "race," "ethnicity," "regionalism," "landscape," and "humor."

Prerequisite: At least three credit hours of prior coursework in AMST.

Contact department for information to register for this course.

AMST498B **Special Topics in American Studies; Revolutions and Diasporas**

Topics of special interest.

Cross-listed with USLT498R. Credit granted for USLT498R or AMST498B. This course investigates how revolutions in Latin America influenced the history of US immigration, refugee, and asylum policies and how they changed US history, culture, experience, geography, politics and the future.

0101	Robert Chester	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	TWS 0134

AMST498C **Special Topics in American Studies; Central Americans and the United States: Culture, Politics, and Community**

Topics of special interest.

Cross-listed with USLT498D. Credit only granted for AMST498C or USLT498D. With attention to history, memory, politics, and culture, explores the relationships, conflicts, and exchanges of people and power between the United States and the Central American isthmus. Through literature, feature films, documentary films, theatre, poetry, and other mediums, the course investigates the role of the US government and military, as well as US corporate interests and US-backed dictatorships, in the culture, politics, and economy of nations including El Salvador, Nicaragua, Guatemala, and Honduras.

0101	Robert Chester TuTh 12:30pm - 1:45pm	Seats (Total: 20) TWS 0134

AMST601 **Introductory Theories and History in American Studies**

Restriction: Must not be a Graduate Advanced Special Student.

Explores the formative literature, theories, research approaches, and history of American Studies.

0101	La Marr Bruce Tu 4:00pm - 6:40pm	Seats (Total: 10) TWS 0134

AMST628N **Seminar in American Studies; Space, Place, and Identity in the Digital Age**

0101	Jason Farman Th 4:00pm - 6:30pm	Seats (Total: 15) TWS 0134

AMST655 **Introduction to Museum Scholarship**

Cross-listed with: ANTH655, HIST610, INST653. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

0201	Diana Marsh Th 2:00pm - 4:40pm	Seats (Total: 30) HBK 0103

AMST698 **Directed Readings in American Studies**

(Perm req)

This course is designed to provide students with the opportunity to pursue independent, interdisciplinary research and reading in specific aspects of American culture under the supervision of a faculty member.

Contact department for information to register for this course.

AMST798 **Non-Thesis Research**
Contact department for information to register for this course.

AMST799 **Master's Thesis Research**
Contact department for information to register for this course.

AMST857 **Museum Scholarship Practicum**

(Perm req)

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: ANTH857, HIST811, INST787. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

IM01	Paul Jaeger	Seats (Total: 12)
	Contact instructor or department for details.	

AMST878A **American Studies Pedagogy Mentoring; Mentoring for First Year Teaching in American Studies**

(Perm req)

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

Prerequisite: permission of department and must be a current AMST teaching assistant.

0101	La Marr Bruce	Seats (Total: 8)
	Contact instructor or department for details.	

AMST878B **American Studies Pedagogy Mentoring; Mentoring for Second Year Teaching in American Studies**

(Perm req)

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

Prerequisite: permission of department and must be a current AMST teaching assistant.

0101	La Marr Bruce	Seats (Total: 6)
	Contact instructor or department for details.	

AMST878C **American Studies Pedagogy Mentoring; Mentoring for Third Year Teaching in American Studies**

(Perm req)

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

Prerequisite: permission of department and must be a current AMST teaching assistant.

0101	La Marr Bruce	Seats (Total: 5)
	Contact instructor or department for details.	

AMST898 **Pre-Candidacy Research**
Contact department for information to register for this course.

AMST899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ANSC Animal Science Fall 2023

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available.

ANSC101 **Principles of Animal Science**

A comprehensive overview of the application of biology in the care and use of animals that live in close association with humans including food animals, companion animals, lab animals, zoo animals, etc. The role of science in modern food production using animals will be emphasized.

0101	Kristina Mayo	Seats (Total: 156)
	MWF 1:00pm - 1:50pm	ESJ 1224

ANSC103 **Principles of Animal Science Laboratory**

Prerequisite: Must have completed or be concurrently enrolled in ANSC101. Restriction: Must be in one of the following programs (Environmental Sci & Pol-Environment & Agriculture; Agricultural and Veterinary Medicine; Agricultural Science and Technology) ; or must be in a major within the AGNR-Animal & Avian Sciences department; or permission of department required for students in other College of AGNR programs.

Laboratory focusing on the application of biology in the care and use of animals that live in close association with humans including livestock and companion animals. Labs will include live animals.

Students must pay a $50.00 laboratory materials fee.

0101	Kristina Mayo	Seats (Total: 21)	
	M 3:00pm - 4:50pm	ANS 1144	Lab

0201	Kristina Mayo Tu 2:00pm - 3:50pm	Seats (Total: 21) ANS 1144	 Lab
0401	Kristina Mayo Th 2:00pm - 3:50pm	Seats (Total: 21) ANS 1144	 Lab
0501	Kristina Mayo W 3:00pm - 4:50pm	Seats (Total: 21) ANS 1144	 Lab
0701	Kristina Mayo W 10:00am - 11:50am	Seats (Total: 21) ANS 1144	 Lab

ANSC105 **Horse Care Practicum**

(Perm req)

Restriction: Permission of the instructor. Credit only granted for: ANSC108 or ANSC105. Formerly: ANSC108.

This practicum course provides the opportunity for students to be involved in the routine care of the horses housed at the Campus Farm including grooming, feeding, turnout, first aid, record-keeping, and cleaning. Practical skills are supplemented with online learning.

0101	Rose Cardinal, Amy Burk Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 30) ONLINE	

ANSC204 **Anatomy of Domestic Animals**

Prerequisite: ANSC101, ANSC103, BSCI170 and BSCI171. Corequisite: ANSC205. Restriction: Must be in one of the following programs (Environmental Sci&Pol-Wildlife Resources & Cons; Animal Sciences: Animal Care & Management; Animal Sciences: Equine Studies; Animal Sciences: Laboratory Animal Care; Animal Sciences: Sciences/Preprofessional; Animal Sciences: Animal Biotechnology; Agricultural and Veterinary Medicine). Credit only granted for: ANSC211 or ANSC204 AND ANSC205. Formerly: ANSC211.

Covering the anatomy of major species of domestic animals. Utilizes a systemic approach to provide a general knowledge of both gross and microscopic mammalian structure. Comparative differences between the major domestic species are covered.

0101	Angela Black MW 2:00pm - 2:50pm	Seats (Total: 90) ANS 0408	

ANSC205 **Anatomy of Domestic Animals Laboratory**

Prerequisite: ANSC101, ANSC103, BSCI170 and BSCI171. Corequisite: ANSC204. Restriction: Must be in one of the following programs (Environmental Sci&Pol-Wildlife Resources & Cons; Animal Sciences: Animal Care & Management; Animal Sciences: Equine Studies; Animal Sciences: Laboratory Animal Care; Animal Sciences: Sciences/Preprofessional; Animal Sciences: Animal Biotechnology; Agricultural and Veterinary Medicine). Credit only granted for: ANSC211 or ANSC204 and ANSC205. Formerly: ANSC211.

A regional approach is taken to study the gross anatomy of major domestic species in the laboratory portion of this course.

Students must pay a $50.00 laboratory materials fee.

0101	Angela Black	Seats (Total: 24)	
	Tu 9:00am - 10:50am	ANS 0108	Lab
	Tu 11:00am - 11:50am	ANS 0108	Discussion
0102	Angela Black	Seats (Total: 24)	
	Tu 1:00pm - 2:50pm	ANS 0108	Lab
	Tu 3:00pm - 3:50pm	ANS 0108	Discussion
0103	Angela Black	Seats (Total: 24)	
	Th 9:00am - 10:50am	ANS 0108	Lab
	Th 11:00am - 11:50am	ANS 0108	Discussion
0104	Angela Black	Seats (Total: 24)	
	Th 1:00pm - 2:50pm	ANS 0108	Lab
	Th 3:00pm - 3:50pm	ANS 0108	Discussion

ANSC210 **Veterinary Terminology**

Prerequisite: ANSC204 and ANSC205. Restriction: Must be a major in Animal Sciences. Additional information: The course is offered on-line through a series of self-paced modules on ELMS.

Students will learn terminology related to the clinical practice of small and large animal medicine including medical record terminology and a systems-based consideration of common practices and pathologies.

0101	Kristina Mayo	Seats (Total: 80)
	Class time/details on ELMs	ONLINE

ANSC227 **Eating with Eyes Wide Open**

Are our diet and agricultural production methods sustainable? Students will investigate tensions created by trade-offs made by consumers relative to dietary choices which, in turn, can influence agricultural production methods. The course will inform students about their food supply so they can make informed dietary decisions and practice intentional/informed eating.

0101	R Apter MW 9:00am - 9:50am M 1:00pm - 2:50pm	Seats (Total: 20) CSI 3117 ANS 1144	 Lab
0102	R Apter MW 9:00am - 9:50am Tu 9:00am - 10:50am	Seats (Total: 20) CSI 3117 ANS 1144	 Lab
0103	R Apter MW 9:00am - 9:50am W 1:00pm - 2:50pm	Seats (Total: 20) CSI 3117 ANS 1144	 Lab

ANSC232 **Horse Management**

Prerequisite: ANSC101 and ANSC103. Credit only granted for: ANSC232 or ANSC332. Formerly: ANSC332.

An introductory course on the care, management, and use of horses. Major topics include the industry, breeds, conformation, feeding, health, reproduction, facilities and business.

Students must pay a $50.00 lab materials fee.

0101	Amy Burk MW 10:00am - 10:50am F 9:00am - 10:50am	Seats (Total: 20) ANS 0412 ANS 1144	 Lab
0102	Amy Burk MW 10:00am - 10:50am F 2:00pm - 3:50pm	Seats (Total: 20) ANS 0412 ANS 1144	 Lab

ANSC242 **Dairy Cattle Management**

Prerequisite: ANSC101 and ANSC103. Formerly: ANSC240 and ANSC241.

All aspects of dairy production, including nutrition, reproduction, mastitis control, milking management, farmstead facilities, financial management and forage production.

0101	Fabiana De Freitas Cardoso, J Rico MW 12:00pm - 12:50pm F 11:00am - 12:50pm	Seats (Total: 35) ANS 0402 ANS 1144	 Lab

ANSC246 **Beef Management**

Prerequisite: ANSC101 and ANSC103. Additional information: Students will participate in night watches at the campus farm.

Provides an interactive environment for learning and understanding all areas of beef cattle management including hands-on involvement in the birthing process and care of newborn calves on the campus farm. Course topics will include: An introduction to Beef Production, Breeding and Selection, Reproduction, Nutrition, Cattle Health and Diseases, Cattle Behavior, facility design and management, and Careers working in the American Beef industry.

0101	Racheal Slattery	Seats (Total: 12)	
	MW 12:00pm - 12:50pm	ANS 1144	
	Th 9:00am - 10:45am	ANS 1144	Lab

ANSC255 Introduction to Aquaculture

Prerequisite: ANSC101 and ANSC103; or must have completed an introductory biology course.

Introduces the art and science of rearing aquatic animals and the essential principles of aquaculture. Students receive hands-on training in the methods required for successful husbandry and management of aquatic animals in their water environment.

Students must pay a $50.00 lab materials fee.

0101	Mohamed Salem	Seats (Total: 20)
	TuTh 11:00am - 12:50pm	ANS 1144

ANSC270 Animal Enterprise Management

Prerequisite: ANSC101 and ANSC103; or permission of instructor. Credit only granted for: ANSC270 or AREC306.

General principles of enterprise organization, management, and operation as applicable to food, livestock, and companion animals. Enterprise planning and establishment, management of financial, human, and animal resources, and other related topics will be investigated.

0101	R Apter	Seats (Total: 45)
	TuTh 11:00am - 12:15pm	ANS 0412

ANSC314 Comparative Animal Nutrition

Prerequisite: ANSC101 and ANSC103; and (CHEM231, PLSC275 or AGST275).

The fundamental role and implications of dietary preference, gastrointestinal physiology and nutrients in animal nutrition. Biochemical roles of nutrients in metabolism, digestion, absorption and assimilation as it relates to various life processes.

Offered fall only.

0101	Nishanth Sunny, J Rico	Seats (Total: 88)
	MWF 9:00am - 9:50am	ANS 0408

ANSC359 Internship Experience in Animal and Avian Sciences

(Perm req)

Experiential learning is a key component in an animal science education. Through the internship program, you will have the opportunity to develop your expertise in a specific species and discipline within the animal science curriculum. You will arrange an on- or off-campus internship experience related to animal science. You will spend a specified number of hours at the internship site each week and attend biweekly classroom sessions where we will discuss how the study of animal science fits into your specific internship experience as well as understand how to achieve each of the course learning outcomes.

Prerequisite: ANSC220, ANSC232, ANSC242, ANSC250, ANSC255, ANSC260, or ANSC262. Restriction: Must be in a major within the AGNR-Animal & Avian Sciences department; and permission of instructor.

0101	Monica VanKlompenberg Tu 3:30pm - 5:30pm	Seats (Total: 22) ANS 0402

ANSC371 **Sustainable Agriculture and Environment in Nicaragua: Seminar**

Additional information: This course is a prerequisite and companion to a winter-term study abroad course, ANSC372, in Nicaragua. For General Education DSSP credit, both ANSC371 and ANSC372 must be completed.

Nicaragua is rebuilding its agricultural economy to address multiple goals including reducing poverty, improving food security, as well as decreasing impacts from climate change and decreasing greenhouse gas emissions. The historical, political and social context will be discussed and perspectives will be provided from representatives from diverse groups including farm workers, farm owners, women, and indigenous peoples. Students will see differences between the US and Nicaragua, and in turn, will identify structures that cause those differences.

This course is a prerequisite and companion to a winter-term study abroad course, ANSC372, in Nicaragua. For General Education credit, both ANSC371 and ANSC372 must be completed.

0101	Richard Kohn M 3:30pm - 4:45pm	Seats (Total: 22) ANS 0402
0102	Richard Kohn Class time/details on ELMs	Seats (Total: 30) ONLINE

ANSC388 **Honors Thesis Research**

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

4501	Tom Porter Contact instructor or department for details.	Seats (Total: 5)

9102	Andrew Schiffmacher	Seats (Total: 5)
	Contact instructor or department for details.	

ANSC389 **Experiential Learning**

(Perm req)

Contact department for information to register for this course.

ANSC399 **Special Problems in Animal Science**

(Perm req)

Work assignments are designed to be proportional to the amount of credit. Students are expected to develop an abstract, fact sheet, manuscript, oral presentation, poster, webpage, journal-log, or other scholarly product associated with their study and/or project.

Contact department for information to register for this course.

ANSC417 **Regulatory Issues in Animal Care and Management**

Prerequisite: ANSC220, ANSC232, ANSC242, ANSC250, ANSC255, ANSC260, ANSC262, or ANSC282; or permission of instructor. Additional information: Field trips may be required for this course.

A study of regulatory issues affecting animal care and management in the livestock industry. Guest speakers and classroom discussions will focus on key topics including animal welfare, feed and drug regulations, animal identification, CAFO management, processing and marketing of animal products.

0101	Monica VanKlompenberg	Seats (Total: 23)
	TuTh 12:30pm - 1:45pm	ANS 0402

ANSC437 **Animal Biotechnology**

Prerequisite: ANSC327; or students who have taken courses with comparable content may contact the department.

Key concepts and current issues in animal biotechnology are covered. Current techniques and applications systems as well as social, ethical, and regulatory issues associated with biotechnology will be discussed.

0101	Andrew Schiffmacher	Seats (Total: 22)
	MW 10:00am - 10:50am F 10:00am - 10:50am	ANS 0402 ANS 0467

ANSC446 **Physiology of Mammalian Reproduction**

Prerequisite: ANSC212 or BSCI440.

Anatomy and physiology of reproductive processes in domesticated and wild mammals.

0101	Monica VanKlompenberg TuTh 2:00pm - 3:15pm	Seats (Total: 80) ANS 0408	

ANSC447 **Physiology of Mammalian Reproduction Laboratory**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in ANSC446.

Gross and micro-anatomy, artificial insemination, estrous cycle synchronization and invitro-fertilization procedures and analytical techniques useful in animal management and reproduction.

Students must pay a $50.00 laboratory materials fee.

0101	Carol Keefer F 1:00pm - 2:50pm	Seats (Total: 20) ANS 0108	Lab
0102	Carol Keefer F 11:00am - 12:50pm	Seats (Total: 20) ANS 0108	Lab

ANSC450 **Animal Breeding Plans**

Prerequisite: ANSC101; and 1 course with a minimum grade of C- from (MATH120, MATH136, MATH140, or BIOM301). Restriction: Junior standing or higher.

Design of animal breeding programs for the genetic improvement of livestock and companion animal species. Principles of population and quantitative genetics. Genetic evaluations of animals, selection strategies and crossbreeding systems. Incorporation of statistics and biotechnology into animal breeding plans.

0101	Monica VanKlompenberg MWF 3:00pm - 3:50pm	Seats (Total: 60) ANS 0422	

ANSC455 **Applied Animal Behavior**

Prerequisite: ANSC101 and ANSC103; or BSCI106; or (BSCI160 and BSCI161).

Principles of animal behavior applied to production systems in animal agriculture.

Offered fall only.

0101	R Apter MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 60) ANS 0408 ANS 0408	 Lab

ANSC460 **Comparative Vertebrate Immunology**

Prerequisite: ANSC212, BSCI201, or BSCI440. Credit only granted for: ANSC460 or ANSC489I. Formerly: ANSC489I.

Basic concepts in immunology, and comparing immunity in different vertebrates, including organization of immune systems, innate and adaptive immune responses. Special attention will be paid to how cell-mediated and humoral immune responses are induced in natural infections, and what are the effector mechanisms in both of these processes. Immune response in representative disease models such as infections with viruses and bacteria, cancer, and autoimmune disease will be discussed. Lectures concerning cutting-edge research will also be given.

0101	Zhengguo Xiao	Seats (Total: 30)
	TuTh 9:30am - 10:45am	ANS 0402

ANSC489 **Current Topics in Animal Science**

(Perm req)

Examination of current developments in the animal sciences.

Contact department for information to register for this course.

ANSC624 **Recent Advances in Animal and Avian Sciences**

Restriction: Must be an Animal Sciences graduate student. Credit only granted for: ANSC698C or ANSC624. Formerly: ANSC698C.

Seminar course in advanced animal science research.

0101	Richard Kohn	Seats (Total: 25)
	Tu 3:30pm - 4:45pm	EGR 1102

ANSC625 **Developing Presentation Skills**

Restriction: Must be an Animal Sciences graduate student. Credit only granted for: ANSC625 or ANSC698D. Formerly: ANSC698D.

Seminar designed to teach oral presentation skills for animal science students.

0101	Richard Kohn	Seats (Total: 12)	
	Tu 3:30pm - 4:45pm Th 3:30pm - 4:30pm	EGR 3111 Location: TBA	Discussion

ANSC660 **Poultry Literature**

Readings on individual topics are assigned. Written reports required. Methods of analysis and presentation of scientific material are discussed.

Contact department for information to register for this course.

ANSC688I **Special Topics; Comparative Vertebrate Immunology**

Lectures, experimental courses, and other special subjects in the fields of animal sciences and veterinary medicine.

0101	Zhengguo Xiao TuTh 9:30am - 10:45am Contact instructor or department for details.	Seats (Total: 6) ANS 0402	

ANSC699 **Special Problems in Animal Science**

(Perm req)

Work assigned in proportion to amount of credit. Prerequisite: approval of staff. Problems will be assigned which relate specifically to the character of work the student is pursuing.

Contact department for information to register for this course.

ANSC799 **Master's Thesis Research**
Contact department for information to register for this course.

ANSC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ANSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ANTH Anthropology Fall 2023

ANTH210 **Introduction to Medical Anthropology and Global Health**

An introduction to the central concepts in medical anthropology and the anthropology of global health. This course is a survey of anthropological notions of health, disease, and the body in cross-cultural and global contexts, including classic and contemporary texts. It will provide an examination of systems of knowledge and practice with regard to illness, healing, and global health inequities.

0101	Andrea Lopez TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 20) TMH 0301 WDS 1131	Discussion
0102	Andrea Lopez TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) TMH 0301 WDS 1131	Discussion
0103	Andrea Lopez TuTh 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) TMH 0301 WDS 1131	Discussion
0104	Andrea Lopez TuTh 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 20) TMH 0301 WDS 1131	Discussion

0105	Andrea Lopez TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) TMH 0301 WDS 1131	 Discussion
0106	Andrea Lopez TuTh 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 20) TMH 0301 WDS 1131	 Discussion

ANTH222 **Introduction to Ecological and Evolutionary Anthropology**

Credit only granted for: ANTH220 or ANTH222.

An introduction to the evolution of human physiology and human behavior, the relationship between hominid and non-hominid primates, and the study of relationships between a population of humans and their biophysical environment.

0101	Miguel Vilar TuTh 9:30am - 10:45am M 8:00am - 10:00am	Seats (Total: 20) BPS 1250 WDS 0124B	 Lab
0102	Miguel Vilar TuTh 9:30am - 10:45am M 11:00am - 1:00pm	Seats (Total: 20) BPS 1250 WDS 0124B	 Lab
0103	Miguel Vilar TuTh 9:30am - 10:45am M 2:00pm - 4:00pm	Seats (Total: 20) BPS 1250 WDS 0124B	 Lab
0104	Miguel Vilar TuTh 9:30am - 10:45am W 8:00am - 10:00am	Seats (Total: 20) BPS 1250 WDS 0124B	 Lab
0105	Miguel Vilar TuTh 9:30am - 10:45am W 11:00am - 1:00pm	Seats (Total: 20) BPS 1250 WDS 0124B	 Lab
0106	Miguel Vilar TuTh 9:30am - 10:45am W 2:00pm - 4:00pm	Seats (Total: 20) BPS 1250 WDS 0124B	 Lab

ANTH240 **Introduction to Archaeology**

Exploration of the variety of past human societies and cultures through archaeology, from the emergence of anatomically modern humans to the more recent historical past.

0101	George Hambrecht TuTh 9:30am - 10:45am	Seats (Total: 60) TWS 0320	
0301	Mark Leone MWF 11:00am - 11:50am	Seats (Total: 30) WDS 1114	
FC01	Kyla Cools MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) JMZ 2207	

ANTH260 **Introduction to Sociocultural Anthropology and Linguistics**

Culture and social relationships in a wide variety of settings from small-scale to complex societies. An overview of how anthropology analyzes human behavior. Particular attention to the relationship between language and culture.

Contact department for information to register for this course.

ANTH263 **Sexuality and Culture**

Credit only granted for: ANTH298K or ANTH263. Formerly: ANTH298K.

An overview of sexuality from an anthropological perspective, looking at aspects of sexuality within our own culture and in cultures around the world. Course topics include the biology and culture of sex, gender, physical attraction, sexual orientation, marriage and mating taboos, fertility control, sexually transmitted diseases, and commercial aspects of sex.

FC01	Jeanne Hanna Tu 6:00pm - 7:15pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 27) TWS 1106 ONLINE	

ANTH265 **Anthropology of Global Health**

An overview of the growing field of global health including health care systems, medical practices, ideas about illness in cross-cultural contexts, issues of health development, global health inequity, and human rights issues. The course will focus on the history of global health, the critique of major international health agencies and their development paradigms, and the political economy of social inequalities and health.

FC01	Laura Gilchrest TuTh 3:00pm - 4:15pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 26) WDS 0104 ONLINE	Discussion

ANTH266 **Changing Climate, Changing Cultures**

Explore past, present, and future interactions between humans and climate. Discussions, methods-oriented activities, and case study analyses provide students a foundation for appreciating the role of anthropology in understanding, responding to, and preparing for climate change.

0101	L Jen Shaffer TuTh 3:30pm - 4:45pm	Seats (Total: 60) TWS 0320
FC01	Tanya Icaza Th 7:30pm - 8:45pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 24) SQH 1121 ONLINE

ANTH298R **Special Topics in Anthropology; Africa and Israel**

Anthropological perspectives on selected topics of broad general interest.

Cross-listed with ISRL249F. Credit only granted for ISRL249F or ANTH298R. From the influences of Egypt, Ethiopia, and Sudan on Biblical Israel to modern histories of migration and engagement, relationships between Israeli and African societies have contributed formatively to Israel s presence in the Middle East. This course considers the long history of African and Israeli interactions, including modern migrations, religious claims, and socio-cultural developments.

0101	Sandra Scham MW 3:30pm - 4:45pm	Seats (Total: 35) TWS 1106

ANTH305 **Archaeological Methods and Practice**

Prerequisite: ANTH240, ARTH200, or CLAS180. Cross-listed with: ARTH305, CLAS305, JWST319Y. Credit only granted for: ANTH305, ARTH305, CLAS305, or JWST319Y.

A team-taught, interdisciplinary course discussing theories, methods, and ethical issues in the practice of archaeology.

0101	Jorge Bravo TuTh 2:00pm - 3:15pm	Seats (Total: 35) WDS 1114

ANTH322 **Method and Theory in Ecological Anthropology**

Prerequisite: ANTH220 or ANTH222. Restriction: Must be in a major within the BSOS-Anthropology department. Credit only granted for: ANTH320, ANTH322, ANTH425, or ANTH625.

A theoretical consideration of ecological anthropology, focusing on issues related to cooperation, the management of common property, resilience, and sustainability. Explores the methods of sociocultural anthropology, including ethnology, evolutionary game theory and agent-based modeling; and natural-science approaches including behavioral and systems ecology.

0101	L Jen Shaffer TuTh 11:00am - 12:15pm	Seats (Total: 30) WDS 1114

ANTH323 **Plagues, Pathogens and Public Policy**

Credit only granted for: ANTH429A or ANTH323. Formerly: ANTH429A.

The impact of diseases on populations from prehistoric times through the present will be examined, along with public perceptions of disease, scientific breakthroughs on treatment and prevention, and the ways that politics and public health policies can enhance or impede the advancement of disease treatment. The natural history of disease, population structure, and immunity will be discussed. The class will address emerging and re-emerging diseases and the ways that first responders, researchers, and policy makers may affect the outcome of an outbreak.

FC01	Laura Gilchrest TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 27) WDS 0104

ANTH340 **Method and Theory in Archaeology**

Prerequisite: ANTH240. Restriction: Must be in Anthropology program; or permission of BSOS-Anthropology department.

Theory, method, and practice which guides modern anthropological archaeology. Includes research design and execution (from survey through excavation and interpretation), the reconstruction of aspects of past cultures, and the understanding of cultural change and meaning.

0101	Stephen Brighton MW 12:30pm - 1:45pm	Seats (Total: 30) WDS 0104

ANTH358A **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Archaeology**
(Perm req)

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH358B **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Bio-Anthropology**
(Perm req)

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH358C **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Cultural Anthropology**
(Perm req)

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH386 **Experiential Learning**

(Perm req)

Recommended: Completion of advanced courses in relevant subfield of anthropology recommended. Restriction: Permission of BSOS-Anthropology department; and junior standing or higher; and must be in Anthropology program.

Contact department for information to register for this course.

ANTH398A **Independent Study; Research Problems**

(Perm req)

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398C **Independent Study; The Mediterranean World**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398E **Independent Study; Bodies and Burials**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398G **Independent Study; Ethnicity, Race and Nationality in Europe**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398H **Independent Study; Social Anthropology of Britain (Honors)**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398I **Independent Study; Great Kingdoms of Ancient Near East**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398J **Independent Study; Archaeology Practicum**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398K **Independent Study; Archaeology of Roman Identity**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398L **Independent Study; Social Anthropology of Britain**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH415 **Critical Global Health**

Recommended: ANTH210, ANTH310, or ANTH265 or a similar course focused on global health or medical anthropology course. Jointly offered with: ANTH615. Credit only granted for: ANTH415 or ANTH615.

Extends understandings of diverse health conditions facing world populations today and the science being made around them. Critically examines key issues in global aid and public health, with an emphasis on the theories, concepts, and methods of anthropology.

0101	Matthew Thomann	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	KEY 0102

ANTH433 **Archaeology of Slavery: Classical, Caribbean and North American Contexts**

Jointly offered with: ANTH633. Credit only granted for: ANTH433 or ANTH633.

Has slavery always existed? Does it come and go? North American plantation archaeology has become one of the foundations for understanding African American culture from the 1960s. Slavery in Antiquity existed in Greece and Rome on large scales and was essential to making commercial agriculture profitable work. Slavery in the Caribbean showed Europeans how to make a profit from African bodies. Trafficking in human persons today is recorded by the U.S. State Department annually and is regarded as modern slavery. These varying contexts of slavery will be compared in an attempt to understand slavery scientifically.

0101	Mark Leone	Seats (Total: 20)
	Tu 2:00pm - 4:45pm	CHM 2201
	Class time/details on ELMs	ONLINE

ANTH451 **Environmental Archaeology**

Credit only granted for: ANTH451, ANTH651, ANTH448F, ANTH668F. Formerly: ANTH448F.

An overview of modern environmental archaeology as a tool for the interdisciplinary investigation of past and present global change and to engage the long term past with current issues of sustainability and rapid environmental change.

0101	George Hambrecht	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	WDS 0104

ANTH464 **Anthropology of Cultural Heritage**

Prerequisite: ANTH260. Jointly offered with ANTH664. Credit only grant ed for: ANTH469T, ANTH689T, ANTH464, ANTH664. Formerly: ANTH469T.

A global exploration of how the past is remade in the present. Covers the breadth of scope and specific interventions of heritage practice at the global scale, including the social, political, economic, and ethical dimensions of cultural heritage.

0101	Kathryn Lafrenz Samuels W 11:00am - 1:45pm	Seats (Total: 20) TWS 1106

ANTH476 **Senior Research**

(Perm req)

Restriction: Must be in Anthropology program. Credit only granted for: ANTH476 or ANTH486.

Capstone course in which students pursue independent research into a current problem in anthropology, selected with assistance of a committee of faculty. Research leads to the writing of a senior thesis in anthropology.

Contact department for information to register for this course.

ANTH477 **Senior Thesis**

(Perm req)

Prerequisite: ANTH476. Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program. Credit only granted for: ANTH477 or ANTH487.

Capstone course in which students write a senior thesis on independent research into a current problem in anthropology. The thesis is defined before a committee of faculty.

Contact department for information to register for this course.

ANTH485 **Honors Research Preparation**

(Perm req)

Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program.

Honors Research Preparation is an independent study course during which the Honors candidate will work with their Honors Thesis Advisor to establish not only the structure of the thesis and timeline, but also the formation of Thesis Review Committee.

Contact department for information to register for this course.

ANTH486 **Honors Research**

(Perm req)

Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program. Credit only granted for: ANTH486 or ANTH476.

Capstone course in which students pursue independent research into a current problem in anthropology, selected with assistance of a committee of faculty. Research leads to the writing of an honors thesis in anthropology.

Contact department for information to register for this course.

ANTH487 **Honors Thesis**

(Perm req)

Prerequisite: ANTH486. Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program. Credit only granted for: ANTH487 or ANTH477.

Capstone course in which students write a thesis on the results of independent research into a current problem in anthropology.

Contact department for information to register for this course.

ANTH601 **Applied Anthropology**

An overview of the history and current practices of applied anthropology. This includes relationships between applied anthropology and other major subfields of the profession; the interdisciplinary and public context of applied anthropology; and problems of significance, utility, and ethics associated with applied anthropology.

Offered fall only. For ANTH majors only.

0101	Matthew Thomann M 4:00pm - 6:40pm	Seats (Total: 19) WDS 1127

ANTH606 **Qualitative Methods in Applied Anthropology**

An introduction to the use of ethnography and qualitative methods in applied and policy contexts. Qualitative methods discussed include informal and systematic approaches. Students undertake fieldwork in local settings to practice the qualitative methods and to develop analysis and report writing skills.

0101	Christina Getrich Th 11:00am - 1:45pm	Seats (Total: 19) WDS 1127

ANTH615 **Critical Global Health**

Jointly offered with: ANTH415. Credit only granted for: ANTH415 or ANTH615.

Extends understandings of diverse health conditions facing world populations today and the science being made around them. Critically examines key issues in global aid and public health, with an emphasis on the theories, concepts, and methods of anthropology.

0101	Matthew Thomann TuTh 2:00pm - 3:15pm	Seats (Total: 4) KEY 0102

ANTH620 **Environment and Society**

Cross-listed with: MEES620. Credit only granted for: ANTH620 or MEES620. Additional information: Offered over the interactive video network.

Students will obtain foundational knowledge of core theories and methods that integrate cultural and socio-economic research into environmental science. Key topics include: coupled natural and human systems, cultural models of the environment, social networks, ecological economics, political ecology, environmental justice, and science communication.

0101	Matthew Houser, Kenneth Rose, William Dennison, Matthew Gray Th 2:00pm - 4:45pm	Seats (Total: 20) Location: TBA

ANTH633 **Archaeology of Slavery: Classical, Caribbean and North American Contexts**

Jointly offered with: ANTH433. Credit only granted for: ANTH433 or ANTH633.

Has slavery always existed? Does it come and go? North American plantation archaeology has become one of the foundations for understanding African American culture from the 1960s. Slavery in Antiquity existed in Greece and Rome on large scales and was essential to making commercial agriculture profitable work. Slavery in the Caribbean showed Europeans how to make a profit from African bodies. Trafficking in human persons today is recorded by the U.S. State Department annually and is regarded as modern slavery. These varying contexts of slavery will be compared in an attempt to understand slavery scientifically.

0101	Mark Leone Tu 2:00pm - 4:45pm Class time/details on ELMs	Seats (Total: 10) CHM 2201 ONLINE

ANTH651 **Environmental Archaeology**

Credit only granted for: ANTH448F, ANTH451, ANTH688F, or ANTH651. Formerly: ANTH688F.

An overview of modern environmental archaeology as a tool for the interdisciplinary investigation of past and present global change and to engage the long term past with current issues of sustainability and rapid environmental change.

0101	George Hambrecht TuTh 11:00am - 12:15pm	Seats (Total: 10) WDS 0104

ANTH655 **Introduction to Museum Scholarship**

Cross-listed with: AMST655, HIST610, INST653. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

0201	Diana Marsh Th 2:00pm - 4:40pm	Seats (Total: 30) HBK 0103

ANTH664 **Anthropology of Cultural Heritage**

Credit only granted for: ANTH469T, ANTH689T, ANTH464 or ANTH664. Formerly: ANTH689T.

A global exploration of how the past is remade in the present. Covers the breadth of scope and specific interventions of heritage practice at the global scale, including the social, political, economic, and ethical dimensions of cultural heritage.

0101	Kathryn Lafrenz Samuels	Seats (Total: 10)
	W 11:00am - 1:45pm	TWS 1106

ANTH688A **Current Developments in Anthropology**

(Perm req)

Detailed investigation of a current problem or research technique, the topic to be chosen in accordance with faculty interests and student needs.

Contact department for information to register for this course.

ANTH689A **Special Problems in Anthropology**

(Perm req)

Contact department for information to register for this course.

ANTH701 **Anthropology Internship Preparation**

Preparation for internship includes practicum training in development, presentation and evaluation of position papers, proposals and work plans; literature search and use of secondary data sources in decision making the effect cultural analysis and resource management; ethics and professional development for work in non-academic settings.

Contact department for information to register for this course.

ANTH712 **Anthropology Internship Analysis**

(Perm req)

Prerequisite: ANTH789.

The preparation and presentation of internship results, and the development of skills in report writing and presentation. Includes the completion of a professional quality report or publishable paper based on the internship experience.

Contact department for information to register for this course.

ANTH741 **Introduction to Cultural and Heritage Resource Management**

Restriction: Must be in the Cultural and Heritage Resource Management Master or Post-Baccalaureate Certificate of Professional Studies Programs; or by permission of the Anthropology department.

An introduction to the field of cultural and heritage resource management. Examines existing international, national, and local frameworks for the protection of cultural heritage. Provides an overview of employment opportunities and ethical responsibilities within the profession.

PLA1	Matthew Palus	Seats (Total: 20)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact exst@umd.edu Golden ID students are not eligible for this section.	

ANTH743 **Community Engagement and Consultation**

Restriction: Must be in the Cultural and Heritage Resource Management Program (CHRM); or by permission of the Anthropology department.

A grounding in cultural communication and sensitivity to community, cultural, and stakeholder needs within and beyond project specific confines. Using the broader context of practicing anthropology in the exploration of communication styles, learning styles, and cultural biases and taboos, students are exposed to underlying concepts concerning inter-cultural communication so that they may develop more collaborative approaches to research. The program also provides background in the development of public outreach programs in the context of cultural and heritage resource management.

PLA1	Marie Archambeault	Seats (Total: 20)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact exst@umd.edu Golden ID students are not eligible for this section.	

ANTH747 **Business of CRM**

Restriction: Must be in the Cultural and Heritage Resource Management Masters Program (MPCH) or certificate (Z121) ; or by permission of the Anthropology department.

An overview of the skills necessary for success in managing a CRM program. Students will learn how CRM organizations market and manage clients, prepare and submit budgets and proposals, and coordinate technical staff to successfully complete projects. Topics will address the range of issues that owners and managers are confronted with in their oversight of projects, including the management of employees, ethics and professional responsibilities, ensuring health and safety, and meeting the many contractual obligations of CRM projects.

PLA1	Lyle Torp	Seats (Total: 20)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact exst@umd.edu Golden ID students are not eligible for this section.	

ANTH749 **Cultural and Heritage Resource Management Internship**

An internship/practicum that would contribute to students' understanding of the overall process of CHRM. Students who are already working in CRM or a closely related field may use their employment as their practicum if the opportunity is available for them to learn beyond their current job duties.

PLA1	Matthew Palus	Seats (Total: 20)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact exst@umd.edu Golden ID students are not eligible for this section.	

ANTH751 **Project Management**

Restriction: Must be in the Cultural and Heritage Resource Management Master's Program (MPCH) or certificate (Z121) ; or by permission of the Anthropology department.

This capstone class for the MPS in CHRM provides students with a grounding in the critical thinking processes necessary during each stage of the CRM process. It provides students with insights into the processes used as research questions are translated into data and then into an evaluative report. Students review examples of appropriate and inappropriate technical reports and then analyze the reports to understand the thinking processes necessary for project management to provide the client with the documentation necessary for completing the compliance process.

PLA1	Kelly Hockersmith	Seats (Total: 20)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact exst@umd.edu Golden ID students are not eligible for this section.	

ANTH752 **Introduction to GIS for CRM**

Builds foundational competence for using geographical information systems (GIS) in the field of cultural resources management (CRM), including a basic understanding of how to work in ArcGIS, and the types of data analysis and presentation that are possible within GIS applications.

PLA1	Michael Konzak	Seats (Total: 20)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact exst@umd.edu Golden ID students are not eligible for this section.	

ANTH760 **Development of Social/Cultural Theory**

A broad perspective of the history of social cultural theory in anthropology and the critical skills needed for understanding the subdiscipline is provided. An overview of the history of theorizing about society and culture will help outline the past, present, and future of anthropology and its relations with other scientific and humanistic disciplines.

For Anth majors only.

0101	Andrea Lopez	Seats (Total: 19)
	Tu 11:00am - 1:45pm	WDS 1127

ANTH788 **Internship Research**

(Perm req)

This course augments ANTH 789 and is graded in conjunction with it.

Contact department for information to register for this course.

ANTH789 **Internship**

(Perm req)

Individual instruction course supervised by a department faculty member.

Contact department for information to register for this course.

ANTH799 **Master's Thesis Research**

PLA1	Matthew Palus	Seats (Total: 20)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact exst@umd.edu Golden ID students are not eligible for this section.	

ANTH857 **Museum Scholarship Practicum**

(Perm req)

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: AMST857, HIST811, INST787. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

IM01	Instructor: TBA	Seats (Total: 12)

ANTH898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ANTH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

AOSC Atmospheric and Oceanic Science Fall 2023

AOSC123 **Causes and Consequences of Global Change**

Cross-listed with: GEOL123. Credit only granted for: AOSC123, GEOG123, or GEOL123.

Study of the major components of Earth's climate system and climate change history. Discussion of 21st century climate change prediction, mitigation and adaptation efforts.

0101	Jeffrey Henrikson MW 4:00pm - 4:50pm F 11:00am - 11:50am	Seats (Total: 30) TWS 0320 SPH 0302	 Discussion
0102	Jeffrey Henrikson MW 4:00pm - 4:50pm F 10:00am - 10:50am	Seats (Total: 30) TWS 0320 SPH 0302	 Discussion

AOSC200 **Weather and Climate**

Prerequisite: MATH107, MATH110, or MATH115. Recommended: Concurrent enrollment in AOSC201.

What are weather and climate? Most people think they know but if you ask people to explain the differences and similarities you're bound to get a range of answers. Weather affects not just our daily activities but other important aspects of society such as transportation, commerce, security and agriculture. Most people understand what weather is to some extent. Climate and climate change are concepts that evoke strong emotional responses from people but are less well understood. In this class, students examine fundamental issues such as the greenhouse effect, severe weather, and global weather patterns and how they relate to a changing climate. Instruction in the lectures will provide the basic knowledge needed to understand these issues. In the discussion sections, students will be divided into groups to address the implications of these topics through group projects.

0101	Timothy Canty TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 30) ATL 2324 ATL 2416	 Discussion
0102	Timothy Canty TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 ATL 2416	 Discussion
0103	Timothy Canty TuTh 12:30pm - 1:45pm W 3:00pm - 3:50pm	Seats (Total: 30) ATL 2324 ATL 2416	 Discussion
0201	Jeffrey Henrikson TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 ATL 2428	 Discussion
0202	Jeffrey Henrikson TuTh 2:00pm - 3:15pm W 3:00pm - 3:50pm	Seats (Total: 30) ATL 2324 ATL 2428	 Discussion
0203	Jeffrey Henrikson TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 30) ATL 2324 ATL 2416	 Discussion
0204	Jeffrey Henrikson TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 ATL 2416	 Discussion
0301	Jeffrey Henrikson TuTh 11:00am - 12:15pm Tu 4:00pm - 4:50pm	Seats (Total: 30) ATL 1113 ATL 2416	 Discussion

0302	Jeffrey Henrikson TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 30) ATL 1113 ATL 2416	 Discussion

AOSC200C **Weather and Climate**

Prerequisite: MATH107, MATH110, or MATH115. Recommended: Concurrent enrollment in AOSC201.

What are weather and climate? Most people think they know but if you ask people to explain the differences and similarities you're bound to get a range of answers. Weather affects not just our daily activities but other important aspects of society such as transportation, commerce, security and agriculture. Most people understand what weather is to some extent. Climate and climate change are concepts that evoke strong emotional responses from people but are less well understood. In this class, students examine fundamental issues such as the greenhouse effect, severe weather, and global weather patterns and how they relate to a changing climate. Instruction in the lectures will provide the basic knowledge needed to understand these issues. In the discussion sections, students will be divided into groups to address the implications of these topics through group projects.

0104	Timothy Canty TuTh 12:30pm - 1:45pm W 9:00am - 9:50am *This section is restricted to students in Carillon Communities.*	Seats (Total: 30) ATL 2324 ATL 2416	 Discussion

AOSC201 **Weather and Climate Laboratory**

Corequisite: AOSC200.

Laboratory exercises to supplement AOSC200, including weather observations, weather map analysis, forecasting practice and climate modeling.

Students must pay a $60.00 laboratory materials fee.

0101	Vincent Ferrera Tu 3:30pm - 5:30pm	Seats (Total: 26) ATL 3426	 Lab
0102	Erin Evans W 10:00am - 12:00pm	Seats (Total: 26) ATL 3426	 Lab
0103	Gillian Felton F 10:00am - 12:00pm	Seats (Total: 26) ATL 3426	 Lab
0104	Shujun Zhou W 4:00pm - 6:00pm	Seats (Total: 26) ATL 3426	 Lab

0105	Siyu Shan M 2:00pm - 4:00pm	Seats (Total: 26) ATL 3426	Lab
0106	Gillian Felton M 4:00pm - 6:00pm	Seats (Total: 26) ATL 3426	Lab
0107	Siyu Shan M 10:00am - 12:00pm	Seats (Total: 26) ATL 3426	Lab
0108	Vincent Ferrera F 2:00pm - 4:00pm	Seats (Total: 26) ATL 3426	Lab

AOSC375 **Introduction to the Blue Ocean**

Prerequisite: MATH120 or higher. Recommended: MATH121, MATH141, PHYS161, or PHYS171. Cross-listed with: GEOL375. Credit only granted for: AOSC375 or GEOL375.

The global ocean is a major component of the Earth System that shapes life on earth, including our weather and climate. We explore the observation-based interdisciplinary science of oceanography, identifying its strong connections to related sciences like meteorology, and geography. We apply this developing understanding to environmental issues such as marine pollution, fish and fisheries, as well as to climate variability and to the changes to the marine environment that are resulting from steadily rising levels of atmospheric greenhouse gasses. Focusses include the biogeochemical and physical changes we can observe in the nearby Chesapeake Bay and the coastal waters of Eastern Shore, Maryland.

0101	James Carton MWF 11:00am - 11:50am	Seats (Total: 60) ATL 2324

AOSC399 **Independent Study in Academic Peer Mentoring**

(Perm req)

Earn academic credit for the time spent supporting an AOSC course in the Academic Peer Mentoring Program (AMP).

Contact department for information to register for this course.

AOSC400 **Physical Meteorology**

Prerequisite: 1 course with a minimum grade of C- from (PHYS171, PHYS161, MATH141); or permission of CMNS-Atmospheric & Oceanic Science department.

The application of basic classical physics, chemistry and mathematics to the study of the atmosphere. Composition of the atmosphere; energy sources and sinks (radiation in the atmosphere; radiative balance and radiative forcing of atmospheric processes); atmospheric thermodynamics; clouds and precipitation physics; atmospheric electricity and optics; mesoscale processes (e.g., orographic mesoscale phenomena and instabilities); air mass boundaries; severe weather, tropical cyclones; storms; global circulation.

0101	Maria Molina TuTh 9:30am - 10:45am	Seats (Total: 32) ATL 2428

AOSC420 **Physical Oceanography**

Prerequisite: MATH141 and PHYS141. Recommended: AOSC200. Also offered as: GEOL670, AOSC670. Credit only granted for: AOSC420, AOSC670, or GEOL670.

Ocean observations. Water masses, sources of deep, intermediate, and surface water. Mass, heat, and salt transport, and the meridional overturning circulation. Geochemical tracers and cycles, including carbon. Western boundary currents, mixed layers, and processes maintaining the thermocline. Coastal and estuarine processes. Surface waves and tides. the ocean's role in climate.

0101	Jacob Wenegrat TuTh 2:00pm - 3:15pm	Seats (Total: 15) ATL 2416

AOSC431 **Atmospheric Thermodynamics**

Prerequisite: 1 course with a minimum grade of C- from (PHYS171, PHYS161, MATH141). Recommended: MATH246.

Classical thermodynamics applied to both the dry and the moist atmosphere. Composition; phase changes of water; stability concepts; Properties of aerosols and clouds, cloud nucleation and precipitation processes, atmospheric electricity, cloud and precipitation chemistry.

0101	Alexandra Jones MWF 10:00am - 10:50am	Seats (Total: 25) ATL 2416
AM01	Alexandra Jones MWF 10:00am - 10:50am	Seats (Total: 1) ATL 2416

AOSC436 **Principles of Biogeochemistry**

Prerequisite: MATH120 or MATH140; or must have completed MATH220. And (GEOL100 or GEOL120); and GEOL322. And CHEM131 and CHEM132; or (CHEM135 and CHEM136). Restriction: Non-degree-seeking students require the permission of the instructor. Cross-listed with: GEOL436. Credit only granted for: GEOL436 or AOSC436.

An introduction to the basic principles of biogeochemistry including aspects of organic geochemistry, biochemistry, microbiology, global geochemical cycles, the origin of life and paleoenvironmental evolution.

0101	Alan Kaufman TuTh 8:00am - 9:15am	Seats (Total: 10) ATL 2316

AOSC440 **Polar Remote Sensing**

Prerequisite: PHYS171 or PHYS161; and AOSC401 or GEOG301; or with permission of instructor. Cross-listed with: GEOG440. Jointly offered with: AOSC642. Credit only granted for: AOSC440, GEOG440, AOSC642, or GEOG640.

The harsh environment of the vast polar regions makes them some of the most inaccessible places on Earth. With widespread environmental change already underway, satellite remote sensing provides the only means by which to obtain year-round observations of the polar climate system. The objective of this course is to provide students with an overview of polar remote sensing techniques, including the physical principles of active and passive sensors, orbits, electromagnetic radiation, atmospheric transmission, calibration and validation. We will focus on measurements of the polar oceans, sea ice, glaciers, ice sheets, snow and permafrost, and examine the response of the cryosphere to climate change.

Cross-listed with GEOG440. Credit only granted for AOSC440 or GEOG440.

0101	Sinead Farrell	Seats (Total: 27)
	TuTh 11:00am - 12:15pm	ATL 2428

AOSC470 **Synoptic Meteorology**

Prerequisite: Minimum grade of C- in AOSC431 and AOSC432. Credit only granted for: AOSC470, AOSC600, or METO600.

Atmospheric properties and observations, meteorological analysis and charts, operational numerical forecasts. Application of quasigeostrophic theory, baroclinic instability, midlatitiude and mesoscale weather systems. Tropical meteorology. Weather forecasting using numerical and statistical models. Prediction of weather phenomena on the global, syoptic, meso, and local scales. Analysis of surface and upper air data; Norwegian cyclone model; introduction to weather forecasting.

0101	Jonathan Poterjoy	Seats (Total: 20)
	TuTh 9:30am - 10:45am	ATL 2416

AOSC493 **Senior Research Project I**

Prerequisite: Permission of CMNS-Atmospheric & Oceanic Science department. Restriction: Must be in Atmospheric and Oceanic Science program; or permission of instructor.

Technical writing and oral presentation skills. Planning, writing, and presenting a plan for research in the geosciences.

0101	Timothy Canty, Alexandra Jones	Seats (Total: 20)
	MWF 2:00pm - 2:50pm	ATL 3408

AOSC494 **Atmospheric and Oceanic Science Seminar**

(Perm req)

Prerequisite: Minimum grade of C- in AOSC431 and AOSC432. Restriction: Permission of the Atmospheric and Oceanic Science Department.

Exposure to a wide range of contemporary topics in atmospheric, oceanic, and climate sciences, to foster research interests and promote critical thinking through the weekly AOSC departmental seminar series.

0101	Louis Uccellini Th 3:30pm - 5:00pm	Seats (Total: 50) ATL 2400

AOSC498 **Senior Research Project II**

(Perm req)

The project will be based on the research or development plan created in AOSC493. It may be completed with the approval of a faculty advisor in conjunction with an internship. Final written thesis and oral defense will be expected.

Contact department for information to register for this course.

AOSC499 **Special Problems in Atmospheric Science**

Research or special study in the field of meteorology and the atmospheric and oceanic sciences.

Contact department for information to register for this course.

AOSC600 **Synoptic Meteorology I**

Prerequisite: AOSC610.

Atmospheric properties and observations, meteorological analysis and charts, operational numerical forecasts. Application of quasigeostrophic theory, baroclinic instability, midlatitude and mesoscale weather systems. Tropical meteorology.

0101	Jonathan Poterjoy TuTh 9:30am - 10:45am	Seats (Total: 10) ATL 2416
AM01	Jonathan Poterjoy TuTh 9:30am - 10:45am	Seats (Total: 1) ATL 2416

AOSC610 **Dynamics of the Atmosphere and Ocean I**

Prerequisite: Must have completed or be concurrently enrolled in MATH462; or students who have taken courses with comparable content may contact the department.

Equations of motion and their approximation, scale analysis for the atmosphere and the ocean. Conservation properties. Fluid motion in the atmosphere and oceans. Circulation and vorticity, geostrophic motion and the gradient wind balance. Turbulence and Ekman Layers.

0101	Da-Lin Zhang MWF 12:00pm - 12:50pm	Seats (Total: 30) ATL 2416
AM01	Da-Lin Zhang MWF 12:00pm - 12:50pm	Seats (Total: 1) ATL 2416

AOSC620 **Physics and Chemistry of the Atmosphere I**

Prerequisite: MATH461; or students who have taken courses with comparable content may contact the department.

Air parcel thermodynamics and stability; constituent thermodynamics and chemical kinetics. Cloud and aerosol physics and precipitation processes.

0101	Russell Dickerson TuTh 11:00am - 12:15pm	Seats (Total: 25) ATL 2416
AM01	Russell Dickerson TuTh 11:00am - 12:15pm	Seats (Total: 1) ATL 2416

AOSC642 **Polar Remote Sensing**

Prerequisite: PHYS171 or PHYS161; and AOSC401 or GEOG301; or with permission of instructor. Cross-listed with: GEOG640. Jointly offered with: AOSC440. Credit only granted for: AOSC440, GEOG440, AOSC642, or GEOG640.

The harsh environment of the vast polar regions makes them some of the most inaccessible places on Earth. With widespread environmental change already underway, satellite remote sensing is the only way to obtain year-round observations of the polar climate system. The objective of this course is to provide students with an overview of polar remote sensing techniques, including the physical principles of active and passive sensors, orbits, electromagnetic radiation, atmospheric transmission, calibration and validation. We will focus on measurements of the polar oceans, sea ice, glaciers and ice sheets and examine the response of the cryosphere to climate change.

0101	Sinead Farrell TuTh 11:00am - 12:15pm	Seats (Total: 3) ATL 2428

AOSC652 **Analysis Methods in Atmospheric and Oceanic Science**

Prerequisite: PHYS141 and MATH241; or students who have taken courses with comparable content may contact the department. Recommended: AMSC460, CMSC660, AMSC660, or CMSC460.

A variety of the analysis methods used by atmospheric and oceanic scientists will be applied to observational data sets such as Vostok ice core record, temperature trends, and satellite measurements of ozone,sea ice, etc. in a hands-on, computer laboratory setting. Students will be exposed to Fortran and Python as well as modern file formats such as HDF and netCDF. No prior programming experience required.

0101	Jeffrey Henrikson TuTh 5:30pm - 7:30pm	Seats (Total: 24) ATL 3426
0201	Jeffrey Henrikson Class time/details on ELMs	Seats (Total: 30) ONLINE

AM01	Jeffrey Henrikson TuTh 5:30pm - 7:30pm	Seats (Total: 1) ATL 3426
AM02	Jeffrey Henrikson Class time/details on ELMs	Seats (Total: 1) ONLINE

AOSC670 **Physical Oceanography**

Prerequisite: Permission of CMNS-Atmospheric & Oceanic Science department; or permission of CMNS-Geology department. Cross-listed with: GEOL670. Credit only granted for: GEOL670, AOSC670 or AOSC420.

Ocean observations. Water masses, sources of deep water. Mass, heat, and salt transport, geochemical tracers. Western boundary currents, maintenance of the thermocline. Coastal and estuarine processes. Surface waves and tides. Ocean climate.

0101	Jacob Wenegrat TuTh 2:00pm - 3:15pm	Seats (Total: 11) ATL 2416
AM01	Jacob Wenegrat TuTh 2:00pm - 3:15pm	Seats (Total: 1) ATL 2416

AOSC680 **Introduction to Earth System Science**

An introduction to the study of the earth as a system: atmosphere, oceans, land, cryosphere, solid earth, and humans. Cycling of materials and energy in the earth system: the energy cycle, the hydrologic cycle, the carbon cycle, the nitrogen cycle. Climate processes and variability: land-atmosphere, ocean-atmosphere, biosphere-climate, and human interactions, short- and long-term variability in climate.

0101	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 20) ATL 1114
AM01	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 0) ATL 1114

AOSC798 **Directed Graduate Research**

Directed graduate research in atmospheric and oceanic science.

Contact department for information to register for this course.

AOSC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

AOSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ARAB Arabic Fall 2023

ARAB101 Elementary Arabic I

Introduction to modern standard Arabic in both its spoken and written form. Equal emphasis on all four skill areas: speaking, listening, reading, and writing.

0101	Samah Al-salami MW 2:00pm - 3:15pm	Seats (Total: 15) HJP 3142
0201	Samah Al-salami MWF 12:00pm - 12:50pm	Seats (Total: 15) HJP 2118

ARAB104 Elementary Modern Standard Arabic I-II

Prerequisite: Must have appropriate World Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of Arabic.

An intensive course focusing on developing functional proficiency in the standard Arabic language, both written and formal spoken. Begins with script and phonology, and develops into a limited range of situation-based texts and topics that build vocabulary, grammar, general communicative competence and cultural awareness.

Seats will be opened gradually by the registrar's office, to a total of 15 seats per section.

0101	Lutf Alkebsi MWF 10:00am - 11:50am	Seats (Total: 15) HJP 3142

ARAB204 Intermediate Modern Standard Arabic I

Prerequisite: ARAB105; and must have appropriate World Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of Arabic.

Covers topics related to contemporary Arabic society, literature and culture in standard written and formal spoken Arabic. Acquisition of more complex grammatical structures, expanding vocabulary, and reading, to develop a better understanding of the formal aspects of using MSA.

0101	Samah Al-salami MWF 10:00am - 11:50am	Seats (Total: 15) HJP 2118

ARAB206 Egyptian Colloquial Arabic I

Prerequisite: ARAB205; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not be a fluent/native speaker of Arabic.

Develops communicative skills and cultural knowledge in Egyptian Arabic. Focuses on various social interactions, work and school situations, as well as specifics of pronunciation and grammar of the Egyptian dialect. Designed for students who have completed two years of the regular Arabic sequence classes (104-105 and 204-205) or equivalent.

Prerequisite: ARAB205.

0101	Lutf Alkebsi	Seats (Total: 15)	
	TuTh 11:00am - 12:15pm	HJP 3142	

ARAB207 **Egyptian Colloquial Arabic II**

Prerequisite: ARAB206; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Arabic.

Further develops communicative skills and cultural knowledge in Egyptian Arabic, extending range of contexts and types of social interaction. Focuses on various aspects of Egyptian popular culture.

Contact department for information to register for this course.

ARAB304 **Advanced Modern Standard Arabic I**

Prerequisite: ARAB205; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not be a fluent/native speaker of Arabic. Formerly: ARAB301.

Advanced grammar, reading, writing, speaking in Arabic; study of contemporary Arabic society, politics, and culture.

0101	Ahmed Hanafy	Seats (Total: 15)	
	TuTh 2:00pm - 3:15pm	HJP 2118	
	F 2:00pm - 2:50pm	HJP 2118	Lab

ARAB386 **Experiential Learning**

(Perm req)

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department.

Pre-professional experience in research, analysis and writing in a work setting. Project proposal approved by faculty and internship sponsor. Junior standing.

Contact department for information to register for this course.

ARAB398M **Special Topics in Arabic Studies; Making of Middle Eastern Identities**

In-depth study of a particular aspect of Arabic culture, literature, and language. Specific topic to be announced when offered. Taught in Arabic.

Cross-listed with HIST319Y. Credit only granted for ARAB398M or HIST319Y. Taught in English.

0101	Rachel Schine	Seats (Total: 15)	
	TuTh 9:30am - 10:45am	HJP 2118	

ARAB399 **Independent Study In Arabic**

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member on the Department of Arabic Studies. To be planned during semester preceding registration.

Contact department for information to register for this course.

ARAB399B **Independent Study In Arabic; Moroccan Arabic: Foundation**

(Perm req)

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member on the Department of Arabic Studies. To be planned during semester preceding registration.

Restricted to students in the Arabic Flagship Program.

0101	Ahmed Hanafy	Seats (Total: 5)
	Contact instructor or department for details.	

ARAB499F **Special Topics in Arabic Studies; Borders, Exile, and War in the Mashrek: Representations in Literature, Film, and Media of the Francophone Middle East**

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

Cross-listed with FREN499M. Credit only granted for FREN499M or ARAB499F. Explores selected films and francophone texts in translation from various genres (plays, essays, novels, poetry) with a focus on the concepts of borders, exile, and war from and on the Middle East. Taught in English.

0101	Marilyn Matar	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	LEF 1220

ARAB499K **Special Topics in Arabic Studies; Roots and Patterns: Verb Meaning in Arabic**

(Perm req)

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

Prerequisite: ARAB205 or permission of instructor. Taught in English.

0101	Peter Glanville	Seats (Total: 15)
	MW 2:00pm - 3:15pm	HJP 2118

ARAB499X **Special Topics in Arabic Studies; Yemen: Land of War and Peace**

(Perm req)

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

Prerequisite: ARAB305. Taught in Arabic.

0101	Lutf Alkebsi	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	HJP 3142

ARAB499Z **Special Topics in Arabic Studies; Moroccan Society and Culture**

(Perm req)

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

Prerequisite: ARAB305 and permission of department.

0101	Ahmed Hanafy TuTh 11:00am - 12:15pm	Seats (Total: 15) HJP 2118	

ARAB628A **Special Topics in Arabic Studies; Arabic Audiovisual Discourses**

In-depth study of a particular aspect of Arabic Studies. Topics to be announced when course if offered. Taught in Arabic.

Contact department for information to register for this course.

ARCH Architecture Fall 2023

ARCH170 **Design Thinking and Architecture**

Examines conceptual, perceptual, behavioral, and technical aspects of the built environment, and methods of analysis, problem-solving, and design implementation.

0101	William Wyllie W 9:00am - 9:50am Contact instructor or department for details. F 9:00am - 9:50am	Seats (Total: 19) ARC 0204 ARC 1101	Discussion
0102	William Wyllie W 9:00am - 9:50am Contact instructor or department for details. F 9:00am - 9:50am	Seats (Total: 19) ARC 0204 ARC 1103	Discussion
0103	William Wyllie W 9:00am - 9:50am Contact instructor or department for details. F 9:00am - 9:50am	Seats (Total: 19) ARC 0204 ARC 1125	Discussion
0105	William Wyllie W 9:00am - 9:50am Contact instructor or department for details. F 12:00pm - 12:50pm	Seats (Total: 19) ARC 0204 ARC 1101	Discussion
FC01	William Wyllie MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 27) ARC 1101	

ARCH171 **Design Thinking and Making in Architecture**

Restriction: Must be a major in ARCH-Architecture Program; and must be a freshman; or have permission of the School of Architecture, Planning and Preservation.

Examines iterative design processes and critical thinking skills through active learning and design thinking methodologies to solve problems and apply design as a lens of inquiry and exploration. Students will understand Design Thinking through interactive and experiential learning.

0101	Kenneth Filler MW 11:00am - 12:15pm	Seats (Total: 50) TYD 1101
0102	Kenneth Filler MW 12:30pm - 1:45pm	Seats (Total: 50) ARC 1105

ARCH226 **History of World Architecture II**

Post-1500 - History of Architecture survey course - History of Architecture structured to develop critical thinking and visually literacy with regard to the worldwide legacy of design thinking and building innovation in architecture

0101	Juan Burke TuTh 9:30am - 10:45am	Seats (Total: 120) Location: TBA

ARCH270 **Design in Practice**

Case studies and hands-on design projects ranging in scale from a product to a building to give students insight into the process by which architects work both individually and collaboratively to put disciplinary knowledge and expertise into practice to shape our built environment.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE). Click here for more information on the Fearless Ideas Courses.

0101	Adam Ainslie TuF 11:00am - 12:15pm	Seats (Total: 50) Location: TBA
0201	Madlen Simon TuTh 12:30pm - 1:45pm *Restricted to students in Carillon Communities.*	Seats (Total: 45) ESJ 2101

ARCH271 **People, Planet, and Profit: Building Sustainable Places**

Cross-listed with: RDEV250. Credit only granted for: ARCH271 or RDEV250.

An introduction to the four disciplines represented in the School: architecture and urban design, community planning, historic preservation, and real estate development, that work to create a more sustainable environment for the future to create a more sustainable environment for the future using our interpretation of the quadruple bottom line: socio-cultural, economic, environmental, and design sustainability. Students will be provided with an understanding of the fundamental scholarship and processes of each of these disciplines and examine the intersections between them. Additionally, they will learn by applying the approaches of the four disciplines through a series of field studies.

0101	Wayne Curtis TuTh 3:30pm - 4:45pm	Seats (Total: 150) ARC 0204	

ARCH300 **Design Media and Representation II**

(Perm req)

Prerequisite: ARCH200; or permission of ARCH-Architecture Program. Restriction: Must be in a major in ARCH-Architecture Program.

Study of architectural representation in physical and digital design media. Examine visual communications and speculative visual studies through applied drawing, modeling and making to explore expanded roles of representation in design and design thinking.

0101	Adan Ramos W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	 Discussion
0102	Adan Ramos W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 20) Location: TBA Location: TBA	 Discussion
0103	Adan Ramos W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	 Discussion
0104	Adan Ramos W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 20) Location: TBA Location: TBA	 Discussion
0105	Adan Ramos W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	 Discussion
0106	Adan Ramos W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	 Discussion

0107	Adan Ramos W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	 Discussion
0108	Adan Ramos W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 20) Location: TBA Location: TBA	 Discussion

ARCH386 **Experiential Learning**

(Perm req)

Restriction: Must have learning proposal approved by faculty sponsor and student's internship sponsor; and sophomore standing or higher; and permission of ARCH-Architecture Program.

Learning experience tied to internship of specified duration with targeted learning outcomes.

0101	Kristen Stack Class time/details on ELMs	Seats (Total: 10) ONLINE

ARCH401 **Architecture Design Studio II**

(Perm req)

Prerequisite: Minimum grade of C- in ARCH400. Restriction: Must be in Architecture (B.S.) program.

Continuation of ARCH 400 with introduction to building typology, urban and contextual issues, design of the vertical surface, and architectural interiors.

0101	Michael Abrams MWF 2:00pm - 6:00pm Contact instructor or department for details.	Seats (Total: 80) Location: TBA

ARCH403 **Architecture Design Studio IV**

(Perm req)

Prerequisite: Minimum grade of C- in ARCH402. Restriction: Must be in Architecture (B.S.) program.

Investigations into the relationship between the man-made and the natural world including introductory issues of assembly and material value. Design of the site and the building are combined into an integral process delimiting and probing the boundaries of each and exploring their reciprocal relationship. The architect's obligations to the natural and urban contexts are explored in many dimensions including historical, typological, environmental, and physical.

0101	Daniel Curry MWF 2:00pm - 6:00pm Contact instructor or department for details.	Seats (Total: 80) Location: TBA

ARCH404 **Graduate Architecture Design Studio I**

(Perm req)

Recommended: For 3 1/2 year graduate students only. Restriction: Must be in Architecture (Master's) program.

Introduction to architectural design with particular emphasis on conventions and principles of architecture , visual and verbal communication skills, formal analysis, design process, spatial composition, architectural promenade, basic program distribution, and elementary constructional and environmental responses. Offered fall only.

0101	Lindsey May, Marques King MWF 2:00pm - 6:00pm Contact instructor or department for details.	Seats (Total: 12) Location: TBA

ARCH406 **Graduate Architecture Design Studio III**

(Perm req)

Prerequisite: Minimum grade of C- in ARCH405. Restriction: Must be in Architecture (Master's) program.

Investigations into the relationship between the man-made and the natural world including introductory issues of assembly and material value. Design of the site and the building are combined into an integral process delimiting and probing the boundaries of each and exploring their reciprocal relationship. The architect's obligations to the natural and urban contexts are explored in many dimensions including historical, typological, environmental, and physical.

0101	James Tilghman MWF 2:00pm - 6:00pm Contact instructor or department for details.	Seats (Total: 16) Location: TBA

ARCH419 **Independent Studies in Architectural Technology**

(Perm req)

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH426 **History of Architecture II**

(Perm req)

Restriction: Permission of ARCH-Architecture Program. Credit only granted for: ARCH226 or ARCH426. Additional information: Graduate architecture history course requires additional recitation section and additional coursework tied to survey lectures.

Post-1500 - History of Architecture survey course - History of Architecture structured to develop critical thinking and visually literacy with regard to the worldwide legacy of design thinking and building innovation in architecture. Structured to nurture critical thinking and visually literacy with regard to the worldwide legacy of architecture. The work in the course will involve the evaluation of sources and arguments in reading architectural history. Architecture will be framed relative to ways of thinking, religious beliefs, cultural heritage, and cultural values.

Offered fall only.

0101	Juan Burke TuTh 9:30am - 10:45am	Seats (Total: 120) Location: TBA

ARCH428C **Selected Topics in Architectural History; History of Structure and Construction**

(Perm req)

Selected Topics in Architectural History

0101	Joseph Williams TuTh 11:00am - 12:15pm	Seats (Total: 20) ARC 1101

ARCH428E **Selected Topics in Architectural History; Global Renaissance**

(Perm req)

Selected Topics in Architectural History

Restriction: permission of department. The course 'Global Renaissance' explores the architecture and urban cultures that flourished under the wide-reaching concept of the Renaissance, during the period ranging from 1450 to 1700. The Renaissance is a term that we usually associate to northern Italy, where it originated. However, the phenomenon of the Renaissance coincided with an age of global exploration, commerce, trade, and colonialism, allof which expanded the ideas of the Renaissance to every corner of Europe, the Mediterranean, the New World, and beyond. During the course we will workwith UMD s MITH (Maryland Institute for Technology in the Humanities), in order to create a digital humanities platform (a web page) in which we will showcase the work you will produce throughout the course. The main characteristicof the digital humanities is to employ technological tools to present humanities subjects under new light. In this case, the work will take the form of 3-D architectural models, use of GIS tools, image editing, or other digital-technological tools in order to produce a public pedagogical resource on the subject of the Global Renaissance.

0101	Juan Burke TuTh 2:00pm - 3:15pm	Seats (Total: 20) ARC 1103

ARCH428N **Selected Topics in Architectural History; Medieval Architecture**

(Perm req)

Selected Topics in Architectural History

Prerequisite: ARCH225 and ARCH226. Jointly offered with ARCH628N. Credit only granted for: ARCH428N or ARCH628N. Medieval Europe and the Mediterranean produced a unique building culture in which design was flexible and deeply grounded in the act of construction. In this class, we will trace the diversity of Byzantine, Islamic, Romanesque and Gothic architecture through select case studies.Students will learn to unravel buildings in terms of phases of construction, relate each phase to a different social or political context, and describe the structural technologies that medieval masons rightly flaunted.

0101	Joseph Williams TuTh 3:30pm - 4:45pm	Seats (Total: 25) ARC 1103

ARCH428T **Selected Topics in Architectural History; American Building Typologies**

(Perm req)

Selected Topics in Architectural History

Examines key public, institutional, commercial, and residential building types since the founding of the nation to 1980. Such an approach to American architecture facilitates in-depth studies of like-purposed buildings, focusing on function and design through time. Categories could include state capitals, jails and prisons, places of worship, libraries, art academies and cultural institutions, railroad stations, banks, stores and so on. Students gain additional persepctive by examining the buildings' historical, cultural, and social contexts.

0101	Caroline Hickman TuTh 11:00am - 12:15pm	Seats (Total: 20) ARC 1105

ARCH429 **Independent Studies in Architectural History**

(Perm req)

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Prerequisite: permission of department.

Contact department for information to register for this course.

ARCH430 **Measuring Sustainability in Architecture**

(Perm req)

Credit only granted for: ARCH430 or ARCH418M. Formerly: ARCH418M.

Studies metrics of sustainability as included in rating standards, including LEED. All students will take the LEED GA test.

0101	Ralph Bennett TuTh 5:00pm - 6:15pm	Seats (Total: 90) ARC 0204

ARCH443 **Visual Communication For Architects**

(Perm req)

Corequisite: ARCH400. Restriction: Must be in Architecture (Master's) program; and must be in the 3.5 year M. ARCH program.

Investigation of the relationship between drawing from life and architectural drawing, the conventions of architectural drawing and the role of architectural drawing as a means to develop, communicate, and generate architectural ideas.

0101	Michael Abrams M 10:00am - 12:40pm	Seats (Total: 10) ARC 1125

ARCH448M **Selected Topics in Visual Studies in Architecture; Applied Model Making**

(Perm req)

Selected Topics in Visual Studies in Architecture

0101	David Atwater TuTh 12:30pm - 1:45pm	Seats (Total: 20) Location: TBA

ARCH449 **Independent Studies in Visual Studies in Architecture**

(Perm req)

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Prerequisite: permission of department.

Contact department for information to register for this course.

ARCH458 **Selected Topics in Urban Design; Intro to Creative Placemaking: Practices & Principles**

(Perm req)

Selected Topics in Urban Design

This hybrid case-study based seminar is the introductory course for the Creative Place Making minor; it will introduce students to Creative Placemaking as a practice that leverages the power of the arts, culture, and design to support equitable, vibrant, and sustainable communities. Students will analyze Creative Placemaking initiatives around the United States that elevate our shared humanity and address critical challenges, such as conversations about racial injustice, inequitable development, climate change or celebrations of the diverse communities and cultures around us. Such projects enable us to consider and imagine ethical development practices, especially in underserved and historically marginalized neighborhoods. Students will explore a range of issues related to designing, planning, executing, and evaluating this work. Based on presentations from CP practitioners, they will create presentations to capture the ways that artists and designers in partnership with local culture bearers and knowledge keepers can play a vital role in shaping, keeping, and making a place.

0101	Ronit Eisenbach TuTh 3:30pm - 4:45pm	Seats (Total: 20) ARC 1105
0201	Ronit Eisenbach TuTh 3:30pm - 4:45pm *Restricted to students enrolled in the Creative Placemaking minor.*	Seats (Total: 10) ARC 1105

ARCH459 **Independent Studies in Urban Design**

(Perm req)

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH460 **Site Analysis and Design**

(Perm req)

Restriction: Must be in the Master of Architecture program; or permission of the School of Architecture, Planning and Preservation.

Principles and methods of site analysis; the influence of natural and man-made site factors on site design and architectural form.

0101	Jana VanderGoot F 9:30am - 12:00pm *Principles and methods of site analysis; the influence of natural and man-made site factors on site design and architectural form. This is a graduate level course that is required for all students in the Master's of Architecture program.*	Seats (Total: 40) ARC 1105

ARCH462 **Methods & Materials of Building Construction**

Prerequisite: PHYS121 or equivalent; and MATH120 or MATH140 or equivalent; or permission of the ARCH-Architecture Program. Restriction: Must be in a major in undergraduate or graduate ARCH program or Construction Project Management Minor. Credit only granted for: ARCH410 or ARCH462.

Building Construction methods and materials are examined through case studies to explore the means and techniques applied to the material execution of buildings and BIM. Focus on an understanding of the organization of the design and construction process and awareness of building and zoning codes, material systems and types.

0101	Jennifer Xu TuTh 12:30pm - 1:45pm	Seats (Total: 105) ARC 0204

ARCH464 **Architectural Structures I**

(Perm req)

Prerequisite: ARCH462, ARCH463, and PHYS121; and MATH120 or MATH140, or equivalent; or permission of the ARCH-Architecture Program. Corequisite: ARCH401 or ARCH406. Restriction: Must be in either BS in Architecture or M.Architecture Program. Credit only granted for: ARCH411 or ARCH464.

This course covers the basic principles of architectural structures, including the influence of geometric, sectional, and material properties related to flexure and shear in beam and framed systems; vector mechanics with application to analysis of trusses, catenaries, and arches; diagrammatic analysis of beams for bending moment, shear, and deflection as well as the study of structural framing systems for vertical and lateral loads.

0101	Michael Binder TuTh 11:00am - 12:15pm	Seats (Total: 80) ARC 0204

ARCH466 **Environmental Systems in Architecture**

(Perm req)

Prerequisite: ARCH462 and ARCH463. Corequisite: ARCH403 or ARCH406. Restriction: Must be in either BS in Architecture or M. Architecture Program. Credit only granted for: ARCH413 or ARCH466.

Environmental systems in architecture presents the theory, quantification, and architectural design implications for heating ventilating and air conditioning, water and waste, fire protection, electricity, illumination, acoustics, and vertical transportation.

0101	Jennifer Xu TuTh 9:30am - 10:45am	Seats (Total: 90) ARC 0204

ARCH467 **Integrated Project Delivery**

(Perm req)

Restriction: Must be in a major in ARCH-Architecture Program; or must be in Construction Project Management Minor.

Integrated Project Delivery is examined from design to implementation through an exploration of building construction, architectural design and construction management perspectives.

0101	Kiley Wilfong Cullen Th 7:00pm - 9:40pm	Seats (Total: 20) ARC 1125

ARCH468G **Selected Topics in Architecture; Building Craft & The Architectural Detail**

(Perm req)

Selected Topics in Architecture

0101	Peter Noonan Th 7:00pm - 9:30pm	Seats (Total: 8) ARC 1123

ARCH468K **Selected Topics in Architecture; The Entrepreneurial Architect**

(Perm req)

Selected Topics in Architecture

Cross-listed with ARCH668K. Credit only granted for ARCH468K or ARCH668K.

0101	Madlen Simon TuTh 9:30am - 10:45am	Seats (Total: 30) TWS 1310	

ARCH468N **Selected Topics in Architecture; Architecture and the Forest Aesthetic**

(Perm req)

Selected Topics in Architecture

0101	Jana VanderGoot M 10:00am - 12:30pm	Seats (Total: 8) ARC 1119	

ARCH468P **Selected Topics in Architecture; Resume and Portfolio Design**

(Perm req)

Selected Topics in Architecture

Cross-listed with ARCH668P. Credit only granted for ARCH468P or ARCH668P.

0101	Eric Jenkins M 10:00am - 12:30pm	Seats (Total: 20) ARC 1105	

ARCH470 **Computer Applications in Architecture**

(Perm req)

Prerequisite: ARCH400; or permission of ARCH-Architecture Program.

Introduction to computer utilization, with emphasis on architectural applications.

0101	Stefano Passeri Tu 7:00pm - 9:30pm Th 7:00pm - 8:15pm	Seats (Total: 20) ARC 1115 ARC 1115	 Lab

ARCH472 **Building Information Modeling Communication and Collaboration**

Restriction: Must be in a major in ARCH-Architecture Program; or must be in the Construction Project Management Minor. Credit only granted for: ARCH678I or ARCH472. Formerly: ARCH678I.

Building Information Modeling is explored as pertains to collaboration and communication in the design and construction of buildings and building systems. Practical and empirical learning using BIM software and case studies of real world projects and construction scenarios.

0101	Kiley Wilfong Cullen WF 9:30am - 10:45am	Seats (Total: 20) ARC 1115
0102	Andrew Lindberg WF 11:00am - 12:15pm	Seats (Total: 20) ARC 1115

ARCH478B **Selected Topics in Architecture; Architecture in Italy: History and Preservation**

Selected Topics in Architecture

Contact department for information to register for this course.

ARCH478T **Selected Topics in Architecture; Ecological Design Thinking**

(Perm req)

Selected Topics in Architecture

0101	Julie Gabrielli W 9:00am - 11:40am	Seats (Total: 20) KEY 0126

ARCH478U **Selected Topics in Architecture; The Black Experience & The American Built Enviornment**

(Perm req)

Selected Topics in Architecture

This course will explore the historical and contemporary relationships between the American Black Population and the design, planning, land policy and use of American land.

0101	Marques King W 7:00pm - 9:50pm	Seats (Total: 20) ARC 1103

ARCH478Z **Selected Topics in Architecture; Environmental Psychology**

(Perm req)

Selected Topics in Architecture

Focuses on the role of design in human behavior, exploring people-place relationships centered on human physical, physiological, psychological, sociological, and intellectual responses to elements of the built environment.

0101	Debarati Majumdar Narayan Th 2:00pm - 4:45pm	Seats (Total: 10) LEF 1201

ARCH479 **Independent Studies in Architecture**

(Perm req)

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Prerequisite: permission of department.

Contact department for information to register for this course.

ARCH489 **Independent Studies in Architectural Preservation**

(Perm req)

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Prerequisite: permission of department.

Contact department for information to register for this course.

ARCH600 **Integrated Design Studio V**

(Perm req)

Corequisite: ARCH611. Restriction: Permission of ARCH-Architecture Program.

Integrated and comprehensive building and site design. Course content bridges the gap between design and technology, between practice and education, in a studio setting. Explorations include the integration of conceptual and technical aspects of architectural form and assembly, highlighting the ways in which multiple layers of a building design are developed, coordinated and resolved.

0101	Brittany L Williams, Julie Gabrielli, Michael Binder, Ralph Bennett, Jason Neal MWF 2:00pm - 6:00pm Contact instructor or department for details.	Seats (Total: 30) Location: TBA

ARCH611 **Advanced Architecture Technology Seminar**

(Perm req)

Corequisite: ARCH600. Restriction: Permission of ARCH-Architecture Program.

Technology in design of buildings. Application of technological issues in building design; integration of technology in architecture; technology as a form determinant in architecture; other conceptual and philosophical issues related to the application of technology in the design, construction, and use of buildings.

Offered fall only.

0101	Jason Neal, Justin Eifert, Michael Binder, Mostafa Fakharifar TuTh 5:00pm - 6:15pm	Seats (Total: 30) ARC 1101

ARCH628C **Selected Topics in Architectural History; HISTORY OF STRUCTURE AND CONSTRUCTION**

Graduate Selected Topics in Architectural History

0101	Joseph Williams	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	ARC 1101

ARCH628E **Selected Topics in Architectural History; Global Renaissance**

(Perm req)

Graduate Selected Topics in Architectural History

The course 'Global Renaissance' explores the architecture and urban cultures that flourished under the wide-reaching concept of the Renaissance, during the period ranging from 1450 to 1700. The Renaissance is a term that we usually associate to northern Italy, where it originated. However, the phenomenon of the Renaissance coincided with an age of global exploration, commerce, trade, and colonialism, allof which expanded the ideas of the Renaissance to every corner of Europe, the Mediterranean, the New World, and beyond. During the course we will workwith UMD s MITH (Maryland Institute for Technology in the Humanities), in order to create a digital humanities platform (a web page) in which we will showcase the work you will produce throughout the course. The main characteristicof the digital humanities is to employ technological tools to present humanities subjects under new light. In this case, the work will take the form of 3-D architectural models, use of GIS tools, image editing, or other digital-technological tools in order to produce a public pedagogical resource on the subject of the Global Renaissance.

0101	Juan Burke	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	ARC 1103

ARCH628N **Selected Topics in Architectural History; Medieval Architecture**

Graduate Selected Topics in Architectural History

Jointly offered with ARCH428N. Credit only granted for: ARCH428N or ARCH628N. Medieval Europe and the Mediterranean produced a unique building culture in which design was flexible and deeply grounded in the act of construction. In this class, we will trace the diversity of Byzantine, Islamic, Romanesque and Gothic architecture through select case studies.Students will learn to unravel buildings in terms of phases of construction, relate each phase to a different social or political context, and describe the structural technologies that medieval masons rightly flaunted.

0101	Joseph Williams	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	ARC 1103

ARCH628T **Selected Topics in Architectural History; American Building Typologies**

(Perm req)

Graduate Selected Topics in Architectural History

Examines key public, institutional, commercial, and residential building types since the founding of the nation to 1980. Such an approach to American architecture facilitates in-depth studies of like-purposed buildings, focusing on function and design through time. Categories could include state capitals, jails and prisons, places of worship, libraries, art academies and cultural institutions, railroad stations, banks, stores and so on. Students gain additional perspective by examining the buildings' historical, cultural, and social contexts.

0101	Caroline Hickman TuTh 11:00am - 12:15pm	Seats (Total: 10) ARC 1105

ARCH629 **Graduate Independent Studies in Architectural History**

(Perm req)

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

0801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 2)

ARCH655 **Urban Design Seminar**

Prerequisite: ARCH654; or permission of ARCH-Architecture Program. Credit only granted for: ARCH451 or ARCH655. Formerly: ARCH451.

Advanced investigation into problems of analysis and evaluation of the design of urban areas, spaces, and complexes with emphasis on physical and social considerations; effects of public policies through case studies. Field observations.

0101	Matthew Bell Tu 10:00am - 11:15am F 10:00am - 11:15am	Seats (Total: 15) EDU 2102 EDU 1315

ARCH668G **Advanced Selected Topics in Architecture; Building Craft & The Architectural Detail**

Graduate Selected Topics in Architecture.

0101	Peter Noonan Th 7:00pm - 9:30pm	Seats (Total: 12) ARC 1123

ARCH668K **Advanced Selected Topics in Architecture; The Entrepreneurial Architect**

(Perm req)

Graduate Selected Topics in Architecture.

Cross-listed with ARCH468K. Credit only granted for ARCH468K or ARCH668K.

0101	Madlen Simon TuTh 9:30am - 10:45am	Seats (Total: 30) TWS 1310

ARCH668N **Advanced Selected Topics in Architecture; Architecture and the Forest Aesthetic**

Graduate Selected Topics in Architecture.

0101	Jana VanderGoot M 10:00am - 12:30pm	Seats (Total: 12) ARC 1119

ARCH668P **Advanced Selected Topics in Architecture; Resume and Portfolio Design**

Graduate Selected Topics in Architecture.

Cross-listed with ARCH468P. Credit only granted for ARCH468P or ARCH668P.

0101	Eric Jenkins M 10:00am - 12:30pm	Seats (Total: 20) ARC 1105

ARCH678T **Advanced Selected Topics in Architecture; Ecological Design Thinking**

Graduate Selected Topics in Architecture.

0101	Julie Gabrielli W 9:00am - 11:40am	Seats (Total: 5) KEY 0126

ARCH678U **Advanced Selected Topics in Architecture; The Black Experience & The American Built Enviornment**

Graduate Selected Topics in Architecture.

This course will explore the historical and contemporary relationships between the American Black Population and the design, planning, land policy and use of American land.

0101	Marques King W 7:00pm - 9:50pm	Seats (Total: 10) ARC 1103

ARCH678Z **Advanced Selected Topics in Architecture; Environmental Psychology**

(Perm req)

Graduate Selected Topics in Architecture.

Focuses on the role of design in human behavior, exploring people-place relationships centered on human physical, physiological, psychological, sociological, and intellectual responses to elements of the built environment.

0101	Debarati Majumdar Narayan Th 2:00pm - 4:45pm	Seats (Total: 10) LEF 1201

ARCH679 **Advanced Independent Studies in Architecture; Independent Study in Architecture**

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH700 **Urban Design Studio VII**

(Perm req)

Restriction: Permission of ARCH-Architecture Program.

Studio problems and theories concentrating on urbanism and urban design techniques. Issues and sites range from high density urban in-fill to suburban and greenfield development in American and other contexts. Studio theories explore such topics as Contextualism, Neo-Traditional design, Transit-Oriented Development, density, sustainable development building typology, and street design.

0101	Matthew Bell, Georgeanne Matthews Tu 1:00pm - 7:00pm F 2:00pm - 8:00pm Contact instructor or department for details.	Seats (Total: 19) Location: TBA Location: TBA

ARCH770 **Professional Practice of Architecture**

(Perm req)

Restriction: Permission of ARCH-Architecture Program.

Project management, organizational, legal, economic and ethical aspects of architecture.

0101	Andrew Pressman M 11:15am - 1:50pm	Seats (Total: 30) ARC 1103

ARCH797 **Thesis Proseminar**

Prerequisite: ARCH601.

Directed research and preparation of thesis program.

0101	James Tilghman, Mohammad Gharipour M 8:30am - 11:00am	Seats (Total: 30) ARC 1101

ARCH798 **Thesis in Architecture**

(Perm req)

Complements the research of ARCH 799, with presentation of the design research to student's thesis committee.

Contact department for information to register for this course.

ARCH799 **Master's Thesis Research**

Development of master's thesis.

Restricted to ARCH majors only.

Contact department for information to register for this course.

AREC Agricultural and Resource Economics Fall 2023

AREC200 **The Chesapeake Bay Ecosystem: Intersection of Science, Economics, and Policy**

The Chesapeake Bay is one of the most studied and monitored ecosystems in the world. To develop effective policies to restore this system to a healthier status requires integrating what we know about the biological and physical properties of the system with our understanding of the human dimension. Issues such as achieving nutrient reduction goals, restoring healthy blue crab and oyster fisheries in the bay will be used to demonstrate how economics interacts with science to guide policies that can be effective in achieving Bay restoration goals.

0101	Becky Epanchin-Niell MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 35) ESJ 2204 KEY 0126	Discussion
0102	Becky Epanchin-Niell MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 35) ESJ 2204 JMZ 2206	Discussion
0103	Becky Epanchin-Niell MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 35) ESJ 2204 JMZ 2206	Discussion
0104	Becky Epanchin-Niell MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 35) ESJ 2204 KEY 0126	Discussion

AREC250 **Elements of Agricultural and Resource Economics**

Credit only granted for: ECON200, AREC240 or AREC250.

An introduction to economic principles of production, marketing, agricultural prices and incomes, farm labor, credit, agricultural policies, and government programs.

0101	Maria Soppelsa TuTh 11:00am - 12:15pm	Seats (Total: 80) CHE 2110

AREC260 **The Science of Gender in Economics and Development**

Recommended: Completion of introductory statistics recommended but not required.

Is science an objective enterprise that qualifies researchers to investigate gender free from the constraints and prejudice of their culture? We will investigate the process by which various scientific disciplines, including anthropology, evolutionary biology, psychology, and economics do research on the topic of gender. We will describe the current state of the literature on why different sexes exist and how sex translates into gender across different societies today. With a better understanding of the sources of sex and gender, we will examine how to research the reasons behind the highly divergent economic outcomes for men and women today. We will discuss these issues in the context of the labor market in developed countries like the US as well as a variety of contexts in developing countri es. A particular focus will be the techniques for learning more about the underlying reasons for these differences, how and whether they can be overcome, and if women play a specific role in improving economic outcomes in the poorest parts of the world.

0101	Kenneth Leonard MWF 11:00am - 11:50am	Seats (Total: 60) ESJ 2309

AREC280 **Harvesting Big Data to Examine Agriculture and Climate Change**

Credit only granted for: HNUH258A or AREC280. Formerly: HNUH258A.

Can agricultural production keep up with climate change? The digital revolution has changed the way we analyze and interpret the world. Big data offers both opportunities and challenges that require new tools and methods of analysis. This course applies sophisticated digital tools to an age-old concern: the impact of climate on agricultural productivity. In this hands-on introduction to data analysis and visualization with real-world data, students acquire the tools to understand the impacts of environmental change and more.

Restricted to students in Carillon Communities.

0101	Lars Olson TuTh 2:00pm - 3:15pm	Seats (Total: 60) ESJ 2309

AREC306 **Farm Management and Sustainable Food Production**

The organization and operation of farm businesses are explored through principles of management, financial analysis, production economics, marketing, and business planning. These farm management principles are presented in the context of a sustainable food production system.

0101	Dale Johnson MW 2:00pm - 3:15pm	Seats (Total: 30) SYM 0215

AREC326 **Intermediate Applied Microeconomics**

Prerequisite: ECON200, AREC250, or AREC240; and ECON201. And MATH120, MATH130, MATH136, or MATH140; or must have completed MATH220. Credit only granted for: ECON306, ECON326, AREC489M, or AREC326. Formerly: AREC489M.

Deepens and broadens your ability to apply rigorous economic analysis skills to a broad range of problems.

0101	Neslihan Uler	Seats (Total: 35)
	TuTh 9:30am - 10:45am	JMZ 2206

AREC365 **World Hunger, Population, and Food Supplies**

An introduction to the problem of world hunger and possible solutions to it. World demand, supply, and distribution of food. Alternatives for leveling off world food demand, increasing the supply of food, and improving its distribution. Environmental limitations to increasing world food production.

0101	Kenneth Leonard	Seats (Total: 300)
	MWF 1:00pm - 1:50pm	ESJ 0202

AREC380 **Data Science for Environmental and Resource Economics**

Prerequisite: AREC240, AREC241, AREC250, or ECON200.

An introduction to principles of data science using modern, open source software tools with applications to important problems in environmental, energy and resource economics. Topics include data wrangling, exploratory data analysis and visualization, modeling, forecasting, practices for reproducible research, and communication of results.

0101	James Archsmith	Seats (Total: 30)
	TuTh 9:30am - 10:45am	ATL 1410

AREC386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of AGNR-Agricultural & Resource Economics department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

AREC388 **Honors Thesis Research**

(Perm req)

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

Contact department for information to register for this course.

AREC399 **Special Problems**

Concentrated reading and study in some phase of a problem in agricultural and/or natural resource economics.

Contact department for information to register for this course.

AREC427 **Commodity Pricing and Markets**

Prerequisite: ECON326 or AREC326; or students who have taken courses with comparable content may contact the department.

Economic theory as applied to the marketing of agricultural commodities. How commodity prices vary with current demand and production, and how prices are linked over time, across space, and across grades. The role played by contractual arrangements, cooperative marketing, vertical integration, and governmental policies in commodity marketing strategies.

0101	James MacDonald	Seats (Total: 35)
	MWF 1:00pm - 1:50pm	SYM 0215

AREC430 **Introduction to Agricultural and Resource Law**

Prerequisite: ECON326 or AREC326. Credit only granted for: AREC430 or AREC489K. Formerly: AREC489K.

Survey of law with emphasis on problems and applications related to agricultural and natural resource economics. The course emphasizes strategies for managing legal risk arising from ownership, management, and use of agricultural resources. Students will get practical information to utilize in personal or professional settings. Contract law, constitutional law, tort law, property law, real estate transactions, business organization, estate planning, and debtor.

0101	Paul Goeringer	Seats (Total: 80)
	MWF 10:00am - 10:50am	SYM 0200

AREC447 **The Economy of China**

Prerequisite: AREC326, ECON306, or ECON326.

An introductory survey course of economic development in China with emphasis on understanding the process of economic reform in mainland China since 1978.

0101	Jing Cai	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	SYM 0200

AREC453 **Natural Resources and Public Policy**

Prerequisite: AREC326, ECON306, or ECON326; and (BMGT230 or ECON230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts; Environmental Science & Policy-Env Economics). Cross-listed with: ECON453. Credit only granted for: AREC453 or ECON453.

Rational use and reuse of natural resources. Theory, methodology, and policies concerned with the allocation of natural resources among alternative uses. Optimum state of conservation, market failure, safe minimum standard, and cost-benefit analysis.

0101	Erik Lichtenberg TuTh 2:00pm - 3:15pm	Seats (Total: 36) ESJ B0320	

AREC455 **Economics of Land Use**

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: ECON485. Credit only granted for: AREC455 or ECON485.

Fundamentals of location theory. Microeconomics of land use decisions, including determination of rent and hedonic pricing models. Impacts of government decisions on land use, including regulation (e.g., zoning), incentives (transferable development rights), provision of public services, and infrastructure investments. Impacts of land use on environmental quality, including issues relating to sprawl, agricultural land preservation, and other topics of special interest.

0101	David Newburn TuTh 3:30pm - 4:45pm	Seats (Total: 80) BPS 1243	

AREC481 **Environmental Economics**

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Environmental Science & Policy-Env Economics; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts program). Cross-listed with: ECON481. Credit only granted for: ECON481 or AREC481.

An exploration of the use of economic incentives for protection of the environment and the determination of appropriate (or efficient) level of environmental quality. Also covers the choice of policy instruments for the attainment of environmental standards.

Contact department for information to register for this course.

AREC620 **Optimization in Agricultural and Resource Economics**

Prerequisite: Must have completed Multivariate calculus and matrix or linear algebra.

Mathematical theory of static and dynamic optimization as applied to the economics of agriculture, natural resources and the environment. Topics include necessary and sufficient conditions for constrained optimization, convexity and concavity, duality and the envelope theorem, comparative statics, fixed point theorems, optimal control theory and dynamic programming.

0101	Lars Olson W 3:00pm - 5:45pm W 9:45am - 11:00am	Seats (Total: 25) SYM 0209 SYM 0115	 Discussion

AREC623 **Applied Econometrics I**

Prerequisite: Introductory statistics or econometrics, linear algebra, and differential/calculus; or permission of instructor. Additional information: Intended for first-year Ph.D. students from AREC, BUFN, ECON, EDMS, EDUC, PLCY and URSP departments with a background in introductory statistics or econometrics.

A modern introduction to empirical strategies in applied microeconomic research in public policy, development economics, labor economics, education, marketing and corporate finance. Emphasis on causal reasoning and design-driven identification in the social sciences. Concepts and applications will focus on addressing economically meaningful causal questions. Basic theoretical and mathematical aspects of probability and statistics will be developed to assess the significance of the relationship among economic variables. Topics include: the approximation of the conditional expectation function through a linear predictor (Ordinary Least Squares), the effects of omitted variables and the usefulness of variables that resemble the outcome of a randomized experiment (Instrumental Variables), as well as extensions to high-dimensional big-data counterparts. Fundamental concepts in sampling theory, statistical inference (with small and large samples) and hypothesis testing will be studied and applied to real data using Stata, a general-purpose statistical software.

0101	Erich Battistin	Seats (Total: 28)	
	TuTh 11:00am - 1:30pm F 3:00pm - 5:00pm	SYM 3121 KEY 0123	Discussion

AREC699 **Special Problems in Agricultural and Resource Economics**

(Perm req)

Intensive study and analysis of specific problems in the field of agricultural and resource economics, providing in-depth information in areas of special interest to the student.

Contact department for information to register for this course.

AREC785 **Advanced Economics of Natural Resources**

Prerequisite: Permission of AGNR-Agricultural & Resource Economics department; or (ECON603 and AREC623). Cross-listed with: ECON785. Credit only granted for: AREC785 or ECON785.

The use of exhaustible and renewable natural resources from normative and positive points of view. Analysis of dynamic resource problems emphasizing energy, mineral, groundwater, forestry, and fishery resources; optimal, equilibrium, and intergenerational models of resource allocation.

0101	James Archsmith	Seats (Total: 15)	
	TuTh 11:00am - 12:15pm	SYM 0209	

AREC799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

AREC829 **Policy Design and Causal Inference for Social Science**

A course in applied econometrics that examines empirical strategies in applied microeconomic research used to estimate the effects of a policy or program on the outcomes of interest in fields like public policy, development economics, labor economics, education, marketing and corporate finance, as well as in industry and international organizations. Methods in applied econometrics with a focus on the thought experiment, the hypothetical experiment that should be used to answer the causal question of interest. A taxonomy of departures from the experimental ideal is presented, as well as the assumptions required to mimic the conditions of the unfeasible experiment from observational data. Topics include regression and matching, instrumental variables and natural experiments, differences-in-differences, change-in-changes, synthetic control methods and regression discontinuity designs. Causal parameters defined from conditional moments, and quantiles and effects on conditional distributions (for inequality and poverty assessment) are considered. Stata, a general-purpose statistical software widely used by applied economists, is used to develop concepts and applications.

Prerequisite: AREC623; or permission of instructor. Additional information: Intended for second-year Ph.D. students from AREC, BUFN, ECON, EDMS, EDUC, PLCY and URSP with a background in econometrics comparable to that provided in AREC623. This course delves into empirical strategies in applied micro research, assessing causal effects of policies or programs on outcomes. These methods are the contemporary toolkit for causal inference in academic areas like public policy, economics, education, and finance, as well as in industries and global organizations. Tailored to second-year Ph.D. students with a quantitative foundation akin to AREC623, the course prioritizes design-based identification using observational data. Modules, dedicated to specific strategies, rotate each academic year, covering regression, matching, instrumental variables, natural experiments, and more. The curriculum also addresses practical coding for real-world application.

0101	Erich Battistin	Seats (Total: 25)
	Tu 3:30pm - 6:00pm	SYM 0209

AREC844 **Firm Growth in Developing Countries**

Prerequisite: A one-year PhD-level sequence in microeconomics and a PhD-level course in econometrics.

A study of the growth of firms face in developing countries and interventions/policies that can be used to remove barriers to growth, including issues related to management, credit constraints, political connections, misallocation and trade.

0101	Jing Cai	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	SYM 0209

AREC891 **Introduction to Prospectus Development**

Prerequisite: Completion of the first year of graduate study in AREC. Credit only granted for: AREC 869K or AREC 891. Formerly: AREC869K.

Critical evaluation of research, prospectus topic exploration including literature review, data identification, model development, and related presentations. Required of all second-year Ph.D. students.

0101	Erik Lichtenberg TuTh 9:30am - 10:45am	Seats (Total: 10) SYM 2200B

AREC892 **Dissertation Prospectus Development**

(Perm req)

Prerequisite: Completion of two years of the AREC Ph.D. program. Credit only granted for: AREC 869P or AREC 892. Formerly: AREC869P.

Presentations of proposed dissertation research including literature review, model development, data identification, and written prospectus development. Required of all third-year Ph.D. students.

0101	Erik Lichtenberg TuTh 9:30am - 10:45am	Seats (Total: 35) SYM 2200B

AREC898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

AREC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ARHU Arts and Humanities Fall 2023

ARHU158D **Explorations in Arts and Humanities; Mapping Slave Biographies and the Industries of Enslavement**

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. This course engages students in first-hand archival, historical, and digital work on the history of enslavement in America so that we might better understand its long-reaching effects. Students will work with public databases, historical maps, and biographical materials in an effort to recover what we can of the histories of the enslaved and the industries of enslavement. Though this course takes a broad approach to American slavery, we will also pay special attention to the history of slavery in Maryland and Washington, DC.

0101	Robert Lucci MW 9:30am - 10:45am	Seats (Total: 15) TWS 0214

ARHU158E **Explorations in Arts and Humanities; Frodo Lives! Fantasy in Times of Social Unrest**

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. Why do we retreat to imaginary worlds? What are the benefits-and dangers-of escape? How does fantasy serve us in times of crisis? How did graffiti scrawls like "Frodo lives!" become popular slogans of counterculture and protest? This course explores the possibilities and pitfalls inherent to the fantastic in the arts and humanities, emphasizing in particular the role fantasy plays in diagnosing and addressing injustice.

0101	Peter Grybauskas	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	EDU 3236

ARHU158F **Explorations in Arts and Humanities; Race, Music, and the American Story**

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. Building upon the evolving discussions of race and racism in our society, this course consists of readings and musical tracks that tell the story of the confrontation between American political principles and the practice of racial injustice throughout our history. Applying the research methods and disciplinary perspectives of musicology, we will trace the ways that discourses on race have morphed in the United States, and we will consider the ramifications of these ideas on the endurance of racism in our society.

0101	Stephanie Shonekan	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	KEY 1117

ARHU158G **Explorations in Arts and Humanities; Haiku and Social Change**

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. How has the ancient Japanese haiku form adapted to the modern world? In this course, we will consider the history of haiku and explore how haiku has been used to address such issues as poverty, racism, sexism, climate change, and war. Students will also write their own haiku on the social issues that concern them.

0101	Mark Forrester	Seats (Total: 15)
	MW 2:00pm - 3:15pm	TWS 1106

ARHU158T **Explorations in Arts and Humanities; Using Science Fiction to Interrogate Diversity, Identity and Power**

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. How do we engage with, embrace, or push back against various science fiction visions of the future? And what does that tell us about ourselves and our collective futures? Students will examine how science fiction texts-- including novels, short stories, movies, and television-- and science fiction scholarship-- intersect with writers and readers (including women, LGBTQ people, people of color, people with disabilities, and indigenous populations) and with current political movements, trends, and "identity politics."

0101	Rebecca Holden TuTh 9:30am - 10:45am	Seats (Total: 15) TWS 0223

ARHU158Z **Explorations in Arts and Humanities; Creative Process in Dance**

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. Give yourself permission to dive into the unknown in this movement-based class; to move freely, to think creatively, to search for your own voice, and to work by yourself as well as collaboratively with others. Discover and unleash your deeper self through the invigorating and restorative power of dance. Focusing on modern, contemporary, experimental dance and physical theater; this class asks you to engage with the visual and kinetic nature of the art form, to study different approaches to inspiration, experimentation, movement vocabulary, research, content building, and structure. No prior dance experience required.

0101	Sara Pearson MW 11:00am - 12:15pm	Seats (Total: 15) PAC 1912

ARHU230 **Introduction to Humanities, Health, and Medicine**

(Perm req)

Restriction: Permission of ARHU-English Department. Cross-listed with: ENGL254, HIST219N, WGSS230. Credit only granted for: ARHU230 , ENGL289C, ENGL254, ARHU298A, HIST219N, or WGSS230.

An overview of the historical, cultural, ethical, and spiritual dimensions of medicine, human health, disease, and death from the points of view of various humanistic disciplines.

0101	Michelle Moncrieffe TuTh 11:00am - 12:15pm	Seats (Total: 20) KEY 0125

ARHU240 **Cultural Institutions of the United States**

An introduction to cultural institutions in the United States, while providing student exposure to the professional environment artist find themselves in. In order for artist and arts administrators to succeed after their educational experience it is critical to understand the history of their respective field, and which events and questions have shaped, and are shaping, their industry. This course is very much an interdisciplinary initiative. Over the past century the arts have become ever-more integrated with one another resulting in a requirement of not only understanding one discipline, but how other disciplines affect a particular practice.

Cross-listed with TDPS258C. Credit granted for ARHU240 or TDPS258C.

0101	Kate Keeney MW 10:00am - 11:15am	Seats (Total: 25) ONLINE

ARHU269M **Special Topics in Study Abroad II; Sicily Against the Mafia**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARHU269P **Special Topics in Study Abroad II; Mystery Paintings**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARHU269V **Special Topics in Study Abroad II; Vienna and Budapest Field Study**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARHU275 **Scriptwriting for Theater, Film, and Television**

Cross-listed with: ENGL275. Credit only granted for: ENGL275 or ARHU275.

Introduction to the theory and practice of scriptwriting with an opportunity to read, view, evaluate, write, and revise texts meant to be performed. Students will practice writing for the stage, film, and television and also examine selected scripts, performances, and film and television clips as models for their own creative work. Students will complete frequent writing exercises, participate in workshops, and learn to apply scholarship to the analysis and critique of scripts.

0101	Jay Wilcox MWF 9:00am - 9:50am	Seats (Total: 15) KEY 0123
0102	Jay Wilcox MWF 9:00am - 9:50am *This section is restricted to students in the Jimenez-Porter Writers' House.*	Seats (Total: 5) KEY 0123
0201	Jay Wilcox MWF 10:00am - 10:50am	Seats (Total: 20) KEY 0123

ARHU277 **Careers in the Toy Industry: Gender, Trends, and Social Impact**

Cross-listed with: WGSS277. Credit only granted for: WGSS277 or ARHU277.

Exposes students to diverse career options within the $114 billion global toy industry, and will explore the toy industry's relationships to gender and other areas of social impact. Students will learn how careers in play shape our society and about the countless careers in this fun, dynamic field for individuals with diverse, transferable skills. This class will share how emerging trends in content, technology, and approaches to identity and stereotypes shape the industry, its workforce, and its social impact. From Marketing, Accounting, Advocacy and Communications, to Design, Engineering, Law, Supply Chain and Entrepreneurship this is a constantly evolving industry that has the power to shape minds and our world through the power of play.

0101	Neel Ahuja, Genna Rosenberg W 4:00pm - 4:50pm	Seats (Total: 40) ONLINE

ARHU286 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-College of Arts & Humanities. Restriction: Minimum cumulative GPA of 2.5; and must be in a major or minor in ARHU - College of Arts and Humanities.

Designed for students who are in their first semester at the University of Maryland and/or students who wish to complete legislative internships, some start-up internships and some remote internships. All students must be enrolled in an ARHU major or minor and the internship must be in one of the academic fields covered within the College of Arts and Humanities. In addition to completing their required hours on site, students will be required to attend three bi-weekly seminars at the beginning of the semester to help develop their para-professional goals and understandings.

0101	Jeffrey Kodis, Paula Nadler Contact instructor or department for details.	Seats (Total: 5)

ARHU298L **"Are you - Nobody - too?" Why we create and share stories, poems, comics and zines**

Our ability to create and maintain meaningful social connections tells us that we are not alone; it reminds us that we are connected to something larger, a community, a group of people willing to celebrate our triumphs and help us cope during difficult times. Emphasizing the principles of participation, connection, and collaboration, this course explores how various traditionally marginalized people form their own cultural communities and develop a sense of reciprocal belonging through the creation (and independent distribution) of stories, poems, spoken word poetry, comics and zines.In spite of intersectional obstacles such as the lack of political power, access to resources and economic opportunities, these communities may find it possible to redefine their place in society by demonstrating originality, resilience, and talent.

FC01	Oludolapo Demuren Th 3:00pm - 4:15pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 20) LEF 0135 ONLINE

ARHU309 **Writers' House Colloquium: Creative Writing in Community**

(Perm req)

Colloquium designed to improve students' skills in literary and communication arts through lectures, workshop and discussions on the history and craft of writing across cultures. Topics include poetry and fiction in translation, and exploration of modes of critique, elements of craft of fiction and poetry, writing for different media, genre writing, writing for performance, screen or scriptwriting and creative non-fiction.

For Writers House students only.

0101	Ross Angelella W 4:00pm - 5:15pm *First-year fiction workshop.*	Seats (Total: 15) QAN 1132
0201	Oludolapo Demuren W 7:00pm - 8:15pm *First-year poetry workshop.*	Seats (Total: 15) QAN 1132
0301	Edward Daschle W 5:30pm - 6:45pm *First-year science fiction and fantasy workshop.*	Seats (Total: 15) QAN 1132

ARHU319A **Writers' House Second Year Colloquium: Form and Theory of Creative Writing; Prose**

(Perm req)

Required course for Writers' House students pursuing the notation program. Offered in either poetry or imaginative prose writing. Students work at the intermediate level, refining creative writing skills through cross-cultural reading and writing exercises. As part of the course, students attend a series of lectures and readings given by professional writers.

For Writers' House students only. For further details please contact jmueck@umd.edu.

0101	Oludolapo Demuren MW 3:30pm - 4:45pm Contact instructor or department for details.	Seats (Total: 15) LEF 1220

ARHU319B **Writers' House Second Year Colloquium: Form and Theory of Creative Writing; Poetry**

(Perm req)

Required course for Writers' House students pursuing the notation program. Offered in either poetry or imaginative prose writing. Students work at the intermediate level, refining creative writing skills through cross-cultural reading and writing exercises. As part of the course, students attend a series of lectures and readings given by professional writers.

For Writers' House students only. For further details please contact jmueck@umd.edu.

0101	Laura Lauth Th 5:30pm - 8:00pm Contact instructor or department for details.	Seats (Total: 15) QAN 1132

ARHU338 **Undergraduate Teaching Assistantship in a Living Learning Program**

(Perm req)

Offers exceptional students the opportunity to work closely with a faculty member and gain valuable experience. ARHU Living learning program UTAs also serve as peer mentors and program leaders. They assist with course planning, research, and student advising (as appropriate). We are also allowing for variable credit (1-3 cr hrs).

0101	Ross Angelella Contact instructor or department for details.	Seats (Total: 10)
0102	Jessica Lu Contact instructor or department for details.	Seats (Total: 4)

ARHU340 **Financial Entrepreneurship for Arts Leaders**

Cross-listed with: MUSC448E. Credit only granted for: ARHU340 or MUSC448E.

An introduction to financial entrepreneurship for the arts leader in order to prepare students for diverse and ever-changing careers in the arts and creative fields. Topics explored will include Professional Paperwork (resumes, cover letters, biographies, job searches), Financial Literacy (taxes, budgets, boards, tickets sales, musicians unions), Marketing (website development, social media, press packets, record labels vs. online distribution, headshots, audience development, community engagement, branded content), Communication (public speaking, writing), and Technology (online tools, computer software, peripherals, recording, photography/videography, on campus resources).

0101	Elizabeth Schurgin TuTh 9:30am - 10:45am *Reserved for Arts Leadership Minors; please contact ARHU-School of Theatre, Dance, and Performance Studies for permission to register.*	Seats (Total: 14) PAC 1815
0102	Elizabeth Schurgin TuTh 9:30am - 10:45am	Seats (Total: 14) PAC 1815

ARHU375 **The TV Writers Room Screenwriting for Television and Video**

(Perm req)

Prerequisite: ARHU275, ARHU318, or FILM370; and permission of instructor. Additional information: Priority in enrollment will be given to students participating in the Jimenez-Porter Writers' House and FILM studies programs.

Students engage with the theory and practice of screenwriting for television and video. Students read and watch teleplays designed to teach advantages of the television format. Students apply what they learn to prepare frequent writing exercises, share and provide feedback for peers scripts in a workshop format, and work together as a Writers Room to prepare an original pilot episode.

0101	Paul Cote M 6:00pm - 8:30pm	Seats (Total: 15) QAN 1132

ARHU386 Experiential Learning

(Perm req)

Prerequisite: Permission of ARHU-College of Arts & Humanities. Restriction: Junior standing or higher.

0101	Jeffrey Kodis, Paula Nadler Contact instructor or department for details.	Seats (Total: 30)
0201	Jeffrey Kodis, Paula Nadler Contact instructor or department for details. *This section is intended for students engaging in research-based internships.*	Seats (Total: 5)
0301	Susan Miller Contact instructor or department for details. *This section is restricted to students enrolled in the Arts Leadership Minor.*	Seats (Total: 3)

ARHU458 Graduate School Preparation

Designed for Juniors and Seniors who are interested in applying to graduate school. Topics include skills needed for the graduate school search and application process, evaluation and reflection of application materials, preparation for GRE exam, and exploration into career options after graduate school. Focus on the Humanities fields.

Restriction: Must have earned a minimum of 60 credits. Repeatable to 3 credits if content differs. Designed for Juniors and Seniors who are interested in applying to graduate school. Topics include skills needed for the graduate school search and application process, evaluation and reflection of application materials, preparation for GRE exam, and exploration into career options after graduate school. Focus on the Humanities fields.

0101	Paula Nadler Class time/details on ELMs	Seats (Total: 25) ONLINE

ARHU468A Peer Mentoring Program; Arts and Humanities' Ambassador Program

(Perm req)

A workshop for sophomore, junior or senior students who wish to serve as peer mentors helping first-year students to cope with the numerous issues which often arise in the transition to the university.

Restricted to current ARHU students who will serve as ambassadors for the College of Arts and Humanities.

0101	Jessica Krenek M 4:00pm - 5:30pm	Seats (Total: 20) KEY 0117
0102	Jessica Krenek Class time/details on ELMs	Seats (Total: 5) ONLINE

ARHU486 **Internship Practicum in Arts and Humanities**

(Perm req)

Prerequisite: Have completed previous internship at U of MD. Restriction: Must be in a major in ARHU-College of Arts & Humanities; and permission of ARHU-College of Arts & Humanities; and minimum cumulative GPA of 2.5; and must have earned a minimum of 60 credits; and completed 12 credits at U of MD.

An internship intended for students who have already completed an internship for credit. ARHU486 must be a different experience from the internship students have already taken for credit. Generally students intern with a different company, but they may continue working for the same company if the job is significantly different. See ARHU internship coordinator for details.

0101	Jeffrey Kodis, Paula Nadler Contact instructor or department for details.	Seats (Total: 25)

ARHU489 **Advanced Internship Practicum in ARHU**

(Perm req)

Designed for students who have already completed at least 2 upper level internship courses for academic credit. It is an advanced practicum to assist students in continuing to develop and hone their professional writing, presentation and analytical skills.

Prerequisite: Permission of the College of Arts and Humanities.

0101	Paula Nadler Contact instructor or department for details.	Seats (Total: 2)

ARMY Army Fall 2023

ARMY106 **Basic Military Science I**

Restriction: Students must meet Officer candidate criteria to participate in field training.

Introduction to the personal challenges and competencies that are critical for effective leadership and communication. Develops knowledge and competency in physical fitness through rigorous training and experiential leadership education through leadership laboratories.

0101	Adriana Tarrago, Daniel Fass TuTh 11:00am - 12:15pm	Seats (Total: 31) ATL 1114	
0102	Adriana Tarrago, Daniel Fass MWF 9:00am - 9:50am	Seats (Total: 40) TYD 1118	
FC01	Adriana Tarrago, Daniel Fass TuTh 11:00am - 12:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 15) ATL 1114	
FC02	Adriana Tarrago, Daniel Fass MWF 9:00am - 9:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 9) TYD 1118	

ARMY201 **Army Leadership Development**

Restriction: Sophomore standing or higher.

This course is an intensive examination of the Army Leadership Model in practice. The model is compared to leadership styles and techniques from government and industry and the comparative effectiveness of each. Students form their own personal leadership styles.

0102	Daniel Fass, Donald Casey TuTh 12:30pm - 1:45pm	Seats (Total: 35) BPS 1238	

ARMY301 **Advanced Military Leadership I**

Reinforces understanding and application of Army leadership strategies, critical decision making methodologies, physical and mental fitness excellence. Includes a laboratory period in applied leadership, common military tasks and physical fitness.

0101	Daniel Fass TuTh 11:00am - 12:15pm Th 4:00pm - 6:00pm MWF 6:30am - 7:30am	Seats (Total: 40) TWS 0214 ARM 0131 ARM 0126	 Lab Lab

ARMY401 **Advanced Military Leadership III**

Introduces contracted students to the study of Army structure, practices and processes exercised by Army Commanders and Staff in completing personnel, logistics, training and combat operations. Includes a laboratory in applied leadership skills and two field exercises.

0101	Daniel Fass	Seats (Total: 30)	
	TuTh 2:00pm - 3:15pm	ESJ 1309	
	Th 4:00pm - 6:00pm	ARM 0126	Lab
	MWF 6:30am - 7:30am	ARM 0135	Lab

ARSC Air Science Fall 2023

ARSC059 **Air Force Officer Lab**

Offers Air Force ROTC cadet officer's practical experience in military leadership, management, organization, and customs. May include visits to military installations, weekend laboratories, and flight orientation.

Class will have online meetings with an option to meet face-to-face. See instructor for details. Restriction: Must be an AFROTC cadet. Repeatable to 10 credits if content differs. Formerly: ARSC159. Additional information: This course does not carry any credit toward any degree at the University.

0101	Steven Cicchetto	Seats (Total: 220)	
	Th 7:00am - 8:50am	ARM 0126	Lab
FC01	Steven Cicchetto	Seats (Total: 10)	
	Th 7:00am - 8:50am	ARM 0126	Lab
	Restricted to students in Freshmen Connection.		

ARSC100 **Heritage and Values I**

Corequisite: AFROTC cadets must also register for ARSC059.

Freshman course for AFROTC cadets. Introduces students to the United States Air Force and encourages participation in Air Force Reserve Officer Training Corps. Featured topics include: overview of ROTC, special programs offered through ROTC, mission and organization of the Air Force, brief history of the Air Force, introduction to leadership and leadership related issues, Air Force Core Values, Air Force officer opportunities, and an introduction to communication studies. Leadership laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

An elective but required for freshmen desiring the four-year AFROTC program.

0101	Dain McGlashion	Seats (Total: 50)	
	Tu 9:00am - 9:50am	ARM 0135	
0102	Dain McGlashion	Seats (Total: 75)	
	Th 9:00am - 9:50am	ARM 0135	

0103	Dain McGlashion Th 1:00pm - 1:50pm	Seats (Total: 50) TYD 1101
FC01	Dain McGlashion Th 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 10) TYD 1101
FC02	Dain McGlashion Th 9:00am - 9:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 10) ARM 0135

ARSC200 **Team and Leadership Fundamentals I**

Corequisite: AFROTC cadets must also register for ARSC059.

Sophomore course for AFROTC cadets. Study of factors contributing to the development of air power from its earliest beginnings through two world wars; the evolution of air power concepts and doctrine; introductory leadership; and assessment of communicative skills.

0101	Desirae Martins Th 10:00am - 10:50am	Seats (Total: 40) ARM 0135
0102	Desirae Martins Th 2:00pm - 2:50pm	Seats (Total: 35) SYM 0215
0103	Desirae Martins Tu 10:00am - 10:50am	Seats (Total: 40) ARM 0135

ARSC300 **Leading People and Effective Communication I**

(Perm req)

Corequisite: AFROTC cadets must also register for ARSC059; or permission of UGST-AFROTC-Air Science. Restriction: Junior standing or higher.

The study of leadership and management fundamentals, professional knowledge, Air Force doctrine, and written and oral communication skills. Case studies are used to examine leadership and management situations. This course will satisfy credit toward a minor in military studies.

0101	Steven Cicchetto Th 9:00am - 11:50am	Seats (Total: 40) TYD 1101
0102	Steven Cicchetto TuTh 12:30pm - 1:45pm	Seats (Total: 20) EGR 3114

0103	Steven Cicchetto Contact instructor or department for details.	Seats (Total: 5)	

ARSC400 **National Security and Preparation for Active Duty I**

(Perm req)

Prerequisite: Permission of UGST-AFROTC-Air Science; or (ARSC300 or ARSC301). Corequisite: ARSC059; or permission of UGST-AFROTC-Air Science. Restriction: Senior standing.

Study of American national security policy and processes to include information and implementation, impact of major national and international actors, and development of major policy issues. This course will satisfy credit towards a minor in military studies.

0101	Blake Harness Th 9:00am - 11:50am	Seats (Total: 30) PLS 1117	
0102	Blake Harness TuTh 2:00pm - 3:30pm	Seats (Total: 20) KEY 0125	
0103	Blake Harness Contact instructor or department for details.	Seats (Total: 1)	

ARTH Art History & Archaeology Fall 2023

ARTH169A **Special Topics in Study Abroad I; Roman Archaeology On-Site**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH169B **Special Topics in Study Abroad I; Arts of Modernity**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH169I **Special Topics in Study Abroad I; Art of Rome**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH200 **Art and Society in Ancient and Medieval Europe and the Mediterranean**

Examines the material culture and visual expressions of Mediterranean and European societies from early times until ca. 1300 CE, emphasizing the political, social, and religious context of the works studied, the relationships of the works to the societies that created them, and the interrelationship of these societies.

0101	Emily Egan MW 11:00am - 11:50am M 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3211	 Discussion

0102	Emily Egan MW 11:00am - 11:50am W 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0103	Emily Egan MW 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0104	Emily Egan MW 11:00am - 11:50am M 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0105	Emily Egan MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0106	Emily Egan MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0107	Emily Egan MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0108	Emily Egan MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion

ARTH201 **Art and Society in the West from the Renaissance to the Present**

Examines representative European and American works of art from the later Middle Ages to the present, highlighting the dynamic exchange between artistic and cultural traditions both within periods and across time.

0101	Joshua Shannon TuTh 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3215	Discussion
0102	Joshua Shannon TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3219	Discussion

0103	Joshua Shannon TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) ASY 2203 TWS 0201	Discussion
0104	Joshua Shannon TuTh 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) ASY 2203 ASY 3215	Discussion
0105	Joshua Shannon TuTh 11:00am - 11:50am Tu 2:00pm - 2:50pm	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0106	Joshua Shannon TuTh 11:00am - 11:50am Th 2:00pm - 2:50pm	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
FC01	Zoe Copeman MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 23) ASY 3211	

ARTH230 **Symbolic Images: The Theory and Practice of Iconography in European Art, 1400-1850**

Iconographic interpretation of visual narratives, signs and symbols has long been a topic of art-historical inquiry. In early modern European art, images were often conceived with the deliberate intent of posing a 'puzzle' or 'problem' for the beholder to solve; yet in most cases we have little or no evidence of how contemporary beholders solved such enigmas. Provides students with the opportunity to take command of these research methods and source materials, addressing a genuine iconographic problem, researching the relevant literature, identifying the essential primary source evidence, making contextually appropriate assumptions, and producing a valid result.

0101	Anthony Colantuono TuTh 9:30am - 10:45am	Seats (Total: 20) ASY 3215

ARTH260C **Art and Activism**

Can art effect social change? How may we use the history of radical and avant-garde art to inform present-day movements and models of artistic and creative activism? This course explores the modern and contemporary history of political art and arts activism on local, national, and global scales.

Restricted to students in Carillon Communities.

0101	Abigail McEwen TuTh 9:30am - 10:45am	Seats (Total: 30) ESJ B0320

ARTH269P **Special Topics in Study Abroad II; From Medieval to Contemporary: Exploring the Great Art and Architecture of Prague**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH269R **Special Topics in Study Abroad II; Art of Renaissance**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH305 **Archaeological Methods and Practice**

Prerequisite: ANTH240, ARTH200, or CLAS180. Cross-listed with: ANTH305, CLAS305, JWST319Y. Credit only granted for: ANTH305, ARTH305, CLAS305, or JWST319Y.

A team-taught, interdisciplinary course discussing theories, methods, and ethical issues in the practice of archaeology.

0101	Jorge Bravo	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	WDS 1114

ARTH335 **Seventeenth-Century Art in the Netherlands**

Painting, sculpture and architecture in seventeenth-century Netherlands.

0101	Aneta Georgievska-Shine	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	ASY 3211

ARTH351 **Picturing Contemporary Life: Art Since 1945**

Visual art since 1945, with an emphasis on North America and Europe.

0101	Patricia Ortega-Miranda	Seats (Total: 25)
	W 10:00am - 12:30pm	ASY 3215

ARTH359V **Film as Art; Seeing Through Films: How Movies Mean**

The study of film as a visual art, from theoretical, cultural and aesthetic perspectives. Content varies by semester.

Hollywood is known for creating entertaining, accessible films. This course explores how Hollywood entertainment films have meanings beyond their plots. Students will learn how to analyze the totality of a film and its context, how a film tells its story as they explore the way directors use film form and film conventions to create films with multiple meanings, films that undermine their overt stories, films that critique film genres and star personae, films created out of other films, films that explicate philosophical ideas, and films that change meanings depending upon the culture and expectations of the audience.

0101	Greg Metcalf	Seats (Total: 25)
	W 3:30pm - 7:00pm	ASY 4213A

ARTH362 **Presently Black: Contemporary African American Art**

Looks critically at African-American and African diaspora art, focusing particularly on works made in the 20th and 21st centuries. Organized chronologically, this class will provide students with a more thorough understanding of this period of art, as well as the overall connection of visual material to the social, the political, and the aesthetic frames of its production. We will study the ways in which African-American visual production has been shaped by larger discourses about American art, but has also responded to the very real circumstances of racial exclusion in both the mainstream art world and larger society. Students will also have a chance to interact directly with the collection of the David C. Driskell Center throughout the semester.

0101	Alison Singer	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	ASY 3215

ARTH369G **Special Topics in Study Abroad III; Art Gallery Management**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH369P **Special Topics in Study Abroad III; History and Workshop of Latin America Photography**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH369Q **Special Topics in Study Abroad III; Patrons and Artists in Baroque Italy**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH386 **Experiential Learning**

Prerequisite: Permission of ARHU-Art History & Archaeology department. Restriction: Junior standing or higher.

Supervised internship experience in diverse areas of art historical, archaeological, and museological work.

Contact department for information to register for this course.

ARTH389C **Special Topics in Art History and Archaeology; Gender, Representation, and Identity: Women Artists from 1860-1940**

This course focuses on women artists from approximately 1860-1940 who worked within the styles of different avant-garde movements, including Impressionism, Symbolism, Expressionism, and Surrealism. The position of women within avant-garde movements was complex as they fought for professional advancement while often being barred from mainstream art academies and facing limited opportunities. Nevertheless, many women carved out spaces of representation and their work critically adds to our understanding of avant-garde movements. We will examine the art production by women artists and the challenging artistic milieus they navigated during this time. We will also consider the current scholarship on women artists and the lenses through which art historians have previously studied them.

0101	Alison Singer	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	ASY 3215

ARTH389W **Special Topics in Art History and Archaeology; Practical Writing in Art History: Museum and Gallery Communications**

0101	Raino Isto	Seats (Total: 20)
	M 4:00pm - 6:30pm	ONLINE

ARTH392 **Contemporary Chinese Art and Film**

Cross-listed with: CINE337. Credit only granted for: ARTH392, FILM329L or CINE337. Formerly: FILM329L.

Contemporary Chinese art and film are arguably the most vibrant of all national arts at the turn of the millennium and have become the face - both figuratively and literally - of contemporary China, a complex society with historic overlays of Confucianism, Taoism, Buddhism, Communism, Post-socialism, and state capitalism. Students will consider a wide range of art forms (painting, photography, video, installation, web-based media, and film) in four broad themes (uses of the past; critiques of power; representations of race, gender, and sexuality; socially engaged art) and explore the complex intertwining of the political, historical, and aesthetic aspects in Chinese contemporary art and film, as well as the multiple contexts in which these artworks are created and circulated.

Cross-listed with FiLM329L. Credit only granted for ARTH392 or FILM329L.

0101	Jason Kuo	Seats (Total: 25)
	M 1:00pm - 3:30pm	ASY 4213A

ARTH428B **Selected Topics in Art History; Small Things in the Renaissance**

(Perm req)

Advanced special topics in Art History.

Restriction: Permission of instructor. Very small things, things that could be grasped in the hand or worn on the body, had a particular fascination to sight and to touch in the Renaissance. This course will look at objects such as miniature paintings (narratives, landscapes, portraits), statuettes, jewels, watches, coins, small books, playing cards and dice, writing tools, and naturalia (shells, coral) that people held and that held their attention.

0101	Elizabeth Honig	Seats (Total: 2)
	W 3:00pm - 5:30pm	ASY 4304

ARTH488J **Colloquium in Art History; Japanese Art in the 20th Century: Empire,War & Occupation**

Colloquium to investigate a specific topic in depth.

Learn how art played a role in building the Japanese empire, supporting the war effort, and rebuilding the nation after defeat. Discover the relation between art, power and politics. See how contemporary Japanese artists incorporate modern history into their art. Handle archival materials and artworks with your own hands.

0101	Alicia Volk	Seats (Total: 14)
	TuTh 11:00am - 12:15pm	ASY 3217

ARTH488L **Colloquium in Art History; Toward a New Aesthetic: Art, Literature, and Music of the Harlem Renaissance**

Colloquium to investigate a specific topic in depth.

This course will consider the cultural production of the Harlem Renaissance, which was the major intellectual and creative movement primarily centered in the New York City neighborhood of Harlem during the 1920s and 1930s. We will study the African American artists, writers, musicians, and intellectuals of the Harlem Renaissance and focus on the ways in which their creative work and ideas formed the center of a significant debate at the time: the debate around race and representation and defining a new Black aesthetic. By examining their cross-disciplinary achievements, we will critically analyze the ways in which artists, writers, and musicians challenged, were shaped by, and participated in these ongoing debates.

0101	Alison Singer	Seats (Total: 14)
	F 1:00pm - 3:30pm	ASY 3215

ARTH489L **Special Topics in Art History; The Transnational Cinema of Ang Lee: Culture, Gender, and Race**

Cross-listed with CINE459L and WGSS498K. Credit only granted for ARTH489L, CINE459L or WGSS498K. Students will examine how the award-winning director Ang Lee has been able to explore important issues of culture, gender, race, identity, and values across borders in a transnational world. Films to be studied are from a wide spectrum of genres and may include "The Wedding Banquet," "Sense and Sensibility," "The Ice Storm," "Crouching Tiger, Hidden Dragon," "Hulk," "Brokeback Mountain," "The Life of Pi," and "Gemini Man."

0101	Jason Kuo	Seats (Total: 20)
	W 3:00pm - 5:30pm	ASY 3215

ARTH498 **Directed Studies in Art History I**

(Perm req)

Contact department for information to register for this course.

ARTH499 **Honors Thesis**

(Perm req)

Contact department for information to register for this course.

ARTH692 **Methods of Art History**

(Perm req)

Methods of research and criticism applied to typical art-historical problems; bibliography and other research tools.

For all non-Art History and Archaeology majors, permission of the department is required.

0101	Anthony Colantuono Tu 12:30pm - 3:00pm	Seats (Total: 6) ASY 4304

ARTH698 **Teaching Art History**

Allows students to explore pedagogical tools and methods in the history of art and archaeology, with a goal to becoming better instructors in the field. Starting with the basics of being a good TA (discussion of texts, teaching visual analysis, grading assignments), it moves on through questions of research and project-based teaching, lecturing, and the creation of an inclusive and equitable classroom. Students are asked to design a class they could teach, including a syllabus and assignment prompts. They will also learn how to deliver a lecture (in class, at a conference) and will explore the job market (academic and non-academic) for art historians and archaeologists. The class is recommended for students who have served once as a TA and taken the basic "TA Training" workshops.

0101	Emily Egan, Elizabeth Honig, Karin Zitzewitz, Joshua Shannon F 1:30pm - 3:30pm	Seats (Total: 10) ASY 4304

ARTH708B **Seminar in Ancient Art and Archaeology; Double Vision: The Ancient Copy in Context**

This course explores the history, theory, and technology of the production and use of copies of ancient objects and buildings. Focus falls on works from Italy and Greece and considers equally copies produced in antiquity and replicas (exact and adapted) made for display in private collections, museums, and universities. Over the duration of the course, we will unpack the complex concept of the "copy," and interrogate points of intersection with "copy culture" in other art-historical periods.

0101	Emily Egan M 1:30pm - 4:00pm	Seats (Total: 8) ASY 4304

ARTH789B **Selected Topics in Art History; Small Things in the Renaissance**

Very small things, things that could be grasped in the hand or worn on the body, had a particular fascination to sight and to touch in the Renaissance. This course will look at objects such as miniature paintings (narratives, landscapes, portraits), statuettes, jewels, watches, coins, small books, playing cards and dice, writing tools, and naturalia (shells, coral) that people held and that held their attention.

0101	Elizabeth Honig W 3:00pm - 5:30pm	Seats (Total: 8) ASY 4304

ARTH798 **Directed Graduate Studies in Art History**

(Perm req)

Contact department for information to register for this course.

ARTH799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

ARTH898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

ARTH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ARTT Art Studio Fall 2023

ARTT100 **Two-Dimensional Design Fundamentals**

Principles and elements of two-dimensional design. Introduction to visual communication.

Students must pay a $40.00 laboratory studio fee.

0101	Sima Pirmoradi TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0201	Sima Pirmoradi TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0501	Wendy Jacobs MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0601	Wendy Jacobs MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0701	Wendy Jacobs MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2318	Lab
0801	Wendy Jacobs MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2318	Lab

ARTT110 **Elements of Drawing I**

Fundamental concepts, media, and processes of drawing. Emphasis on observation and representation in combination with individual expression. Subject matter includes still life, human figure, nature, the built environment, and conceptual projects.

Students must pay a $40.00 laboratory studio fee.

0101	Matthew McLaughlin MW 9:00am - 11:30am	Seats (Total: 18) ASY 2317	Lab
0201	Matthew McLaughlin MW 9:00am - 11:30am	Seats (Total: 18) ASY 2321	Lab
0501	Irene Pantelis TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 2317	Lab
0701	Danielle Leizman TuTh 3:30pm - 6:00pm	Seats (Total: 18) ASY 2317	Lab
0801	Danielle Leizman TuTh 3:30pm - 6:00pm	Seats (Total: 18) ASY 2321	Lab
0901	Jowita Wyszomirska TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2317	Lab
1001	Jowita Wyszomirska TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2321	Lab
1101	Irene Pantelis MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2317	Lab
1201	Irene Pantelis MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2321	Lab
FC01	Charlotte Richardson-Deppe MW 6:00pm - 8:30pm *Restricted to students in Freshmen Connection.*	Seats (Total: 14) ASY 2321	

ARTT110S **Elements of Drawing I**

Fundamental concepts, media, and processes of drawing. Emphasis on observation and representation in combination with individual expression. Subject matter includes still life, human figure, nature, the built environment, and conceptual projects.

Restricted to College Park Scholars - Arts. Students must pay a $40.00 laboratory studio fee.

0601	Irene Pantelis TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 2321	Lab

ARTT150 **Introduction to Art Theory**

Fundamental concepts of global, philosophic, and critical art theory examined through various historic and contemporary texts, and the analysis of works of art.

0101	Jason Kass MW 1:00pm - 1:50pm M 11:00am - 11:50am	Seats (Total: 25) LEF 2205 TYD 1108	Discussion
0102	Jason Kass MW 1:00pm - 1:50pm W 11:00am - 11:50am	Seats (Total: 25) LEF 2205 TYD 1114	Discussion
0103	Jason Kass MW 1:00pm - 1:50pm W 12:00pm - 12:50pm	Seats (Total: 25) LEF 2205 TYD 1114	Discussion
0104	Jason Kass MW 1:00pm - 1:50pm Tu 2:00pm - 2:50pm	Seats (Total: 25) LEF 2205 SQH 2120	Discussion
0105	Jason Kass MW 1:00pm - 1:50pm Th 2:30pm - 3:20pm	Seats (Total: 25) LEF 2205 TWS 1107	Discussion
0106	Jason Kass MW 1:00pm - 1:50pm Th 12:30pm - 1:20pm	Seats (Total: 25) LEF 2205 SQH 2120	Discussion

ARTT200 **Three-Dimensional Art Fundamentals**

Prerequisite: ARTT100 and ARTT110.

Fundamental concepts of three-dimensional form and space examined through the manipulation and organization of various materials.

Students must pay a $40.00 laboratory studio fee.

0101	Steven Jones MW 9:00am - 11:30am	Seats (Total: 18) ASY 1311	Lab
0201	Foon Sham TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 1311	Lab
0301	Sima Pirmoradi MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 1311	Lab

ARTT210 **Elements of Drawing II**

Prerequisite: ARTT110.

Continuation of ARTT110 with additional emphasis on color, figure drawing, and contemporary issues.

Students must pay a $40.00 laboratory studio fee.

0101	Mallory Kimmel TuTh 12:30pm - 3:00pm	Seats (Total: 16) ASY 2315	 Lab
0201	Matthew McLaughlin MW 3:30pm - 6:00pm	Seats (Total: 16) ASY 2315	 Lab
0301	Julia Kwon MW 12:30pm - 3:00pm	Seats (Total: 16) ASY 2315	 Lab
0401	Patrick Craig TuTh 3:30pm - 6:00pm	Seats (Total: 16) ASY 2315	 Lab

ARTT255 **Introduction to Digital Art and Design Processes**

Prerequisite: ARTT100 and ARTT110. Credit only granted for: ARTT255 or ARTT354. Formerly: ARTT354.

Introduction to basic software and principles of digital imaging, and how they are applied to art and design. Topics covered: Digital image construction and manipulation, Vector-Based digital techniques layout, typography, etc), time-based digital techniques (video and audio composition and manipulation), and basic interactivity (web-design). Digital media used to explore visual principles established in ARTT100.

Students must pay a $40.00 laboratory studio fee.

0101	Narendra Ratnapala TuTh 12:30pm - 3:00pm	Seats (Total: 18) ATL 1410	 Lab
0201	Narendra Ratnapala TuTh 3:30pm - 6:00pm	Seats (Total: 18) ATL 1410	 Lab
0301	Shannon Collis Class time/details on ELMs	Seats (Total: 18) ONLINE	 Lab
0401	Johab Silva Class time/details on ELMs	Seats (Total: 18) ONLINE	 Lab

ARTT269R **Special Topics in Study Abroad II; Art of Renaissance**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTT320 **Elements of Painting**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes of oil and/or acrylic painting.

Students must pay a $40.00 laboratory studio fee.

0101	Patrick Craig TuTh 12:30pm - 3:00pm *Emphasizes acrlic paint.*	Seats (Total: 18) ASY 3312	Lab
0201	Richard Klank MW 9:00am - 11:30am	Seats (Total: 12) ASY 3322	Lab
0301	Julia Kwon MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 3322	Lab

ARTT330 **Elements of Sculpture: Metal Casting**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to metal casting.

Students must pay a $40.00 laboratory studio fee.

0101	Steven Jones MW 12:30pm - 3:00pm	Seats (Total: 12) ASY 1310

ARTT330H **Elements of Sculpture: Metal Casting**

(Perm req)

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to metal casting.

Restricted to departmental honors students only. Students must pay a $40.00 laboratory fee.

0101	Steven Jones MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 1310

ARTT331 **Elements of Sculpture: Steel**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to steel fabrication; torch cutting, welding, hot forging, and finishing.

Students must pay a $40.00 laboratory studio fee.

0101	Steven Jones MW 3:00pm - 5:30pm	Seats (Total: 10) ASY 1314	

ARTT331H **Elements of Sculpture: Steel**

(Perm req)

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to steel fabrication; torch cutting, welding, hot forging, and finishing.

Restricted to departmental honors students only. Students must pay a $40.00 laboratory fee.

0101	Steven Jones MW 3:00pm - 5:30pm	Seats (Total: 2) ASY 1314	

ARTT333 **Elements of Sculpture: Wood and Mixed Media**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes using wood and mixed media.

Students must pay a $40.00 laboratory fee.

0101	Foon Sham TuTh 3:00pm - 5:30pm	Seats (Total: 12) ASY 1311	

ARTT341 **Elements of Printmaking: Woodcut and Relief**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to woodcuts, linocuts, and other relief printing media.

There is a $40.00 lab fee for this course.

0101	Jessica Gatlin MW 12:30pm - 3:00pm	Seats (Total: 12) ASY 1317	Lab

ARTT341H **Elements of Printmaking: Woodcut and Relief**

(Perm req)

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to woodcuts, linocuts, and other relief printing media.

There is a $40.00 lab fee for this course. This course is restricted to departmental honors students only.

0101	Jessica Gatlin MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 1317	Lab

ARTT343 **Elements of Printmaking: Screen Printing**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to silkscreen printing.

0101	Justin Strom TuTh 3:30pm - 6:00pm	Seats (Total: 12) ASY 1317
0201	Justin Strom TuTh 12:30pm - 3:00pm	Seats (Total: 12) ASY 1317

ARTT343H **Elements of Printmaking: Screen Printing**

(Perm req)

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to silkscreen printing.

Students must pay a $40.00 laboratory studio fee. This course is restricted to departmental honors students only.

0101	Justin Strom TuTh 3:30pm - 6:00pm	Seats (Total: 2) ASY 1317
0201	Justin Strom TuTh 12:30pm - 3:00pm	Seats (Total: 2) ASY 1317

ARTT353 **Elements of Photography**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Introduction to digital photographic image-making. With an emphasis on technical, aesthetic and conceptual understanding of the photographic medium, camera operation, and photographic composition. Students must have access to a Digital SLR or mirrorless camera capable of interchangeable lenses for this class.

Students must pay a $40.00 laboratory studio fee.

0101	Wendy Jacobs	Seats (Total: 14)	
	TuTh 3:30pm - 6:00pm	ASY 3304	
	Emphasis on Digital Photography, a DSLR camera is required for this section.		

ARTT355 **Intermediate Graphic Design Principles**

(Perm req)

Prerequisite: ARTT150, ARTT200, ARTT210, and ARTT255; and must be admitted to the Graphic Design Concentration (Track 3). Credit only granted for: ARTT350 or ARTT355. Formerly: ARTT350.

Investigation of basic concepts, history, techniques, and materials used by professional graphic designers, focusing on typography. Explores various aspects of design related to typography through examination and production of many types of finished work.

Students must pay $40.00 laboratory studio fee.

0101	Ji Park, Antwon Key	Seats (Total: 25)	
	TuTh 12:30pm - 3:00pm	ASY 2322	Lab

ARTT356 **Graphic Design Processes**

(Perm req)

Prerequisite: ARTT150, ARTT200, ARTT210, and ARTT255; and must have been admitted to Graphic Design Concentration (Track 3). Credit only granted for: ARTT351 or ARTT356. Formerly: ARTT351.

Explores computer graphics and visual communcation principles in a time-based context. Examination of fundamental design principles through digital projects that involve photo manipulation, digital illustration, layout, animation, and web design.

Students must pay $40.00 laboratory studio fee.

0101	Alireza Vaziri Rahimi	Seats (Total: 25)	
	MW 9:00am - 11:30am	ASY 2322	Lab

ARTT369P **Special Topics in Study Abroad III; Spain Seen by Photography**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTT370 **Elements of Digital Media**

Prerequisite: ARTT150, ARTT200, ARTT210, and ARTT255; or permission of ARHU-Art department.

Exploration of image creation and manipulation, interactivity, and linkages between digital audio and video. Emphasis on issues in contemporary digital art.

Students must pay $40.00 laboratory studio fee.

0101	Brandon Morse TuTh 12:30pm - 3:00pm	Seats (Total: 14) ASY 3304	 Lab
0201	Johab Silva MW 3:00pm - 5:30pm	Seats (Total: 14) ASY 3304	 Lab

ARTT386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-Art department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

ARTT389 **Department of Art Undergraduate Teaching Assistantship**

(Perm req)

Individual contractual agreement with faculty/mentor. Individualized assistantship in the teaching of a specified department course offering. Must have previously received an "A" grade for the class to be assisting.

Contact department for information to register for this course.

ARTT399 **Department of Art Research Assistantship**

(Perm req)

Individual contractual agreement with faculty/mentor. Individualized experiential learning developed in relation to art-related research issues.

Contact department for information to register for this course.

ARTT409K **Study Abroad Special Topics IV; New Media**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTT418B **Advanced Drawing Studio; A Contemporary Approach**

Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT150, ARTT200, and ARTT210; plus one 300-level studio course; or permission of department. Students must pay a $40.00 laboratory studio fee. Repeatable to 12 credits. Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

0101	Matthew McLaughlin MW 12:30pm - 3:00pm	Seats (Total: 16) ASY 3318	 Lab
0201	Charlotte Richardson-Deppe MW 3:30pm - 6:00pm	Seats (Total: 16) ASY 3312	 Lab

0301	Jowita Wyszomirska TuTh 3:30pm - 6:00pm	Seats (Total: 16) ASY 2314	Lab

ARTT418H **Advanced Drawing Studio; Honors**

Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

Restricted to departmental honors students only. Students must pay a $40.00 laboratory studio fee.

0101	Matthew McLaughlin MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 3318	Lab
0201	Charlotte Richardson-Deppe MW 3:30pm - 6:00pm	Seats (Total: 2) ASY 3312	Lab
0301	Jowita Wyszomirska TuTh 3:30pm - 6:00pm	Seats (Total: 2) ASY 2314	Lab

ARTT426 **Advanced Painting: Painting on Site I**

Prerequisite: ARTT320; or permission of the Art Department.

Designed for Art and design, architecture, urban planning, and public engagement majors seeking to gain more experience in the public art process. Through public artworks, students will explore ethical methods of community engagement, mural design and production. This course will have 1-2 visiting artists give lectures and/or participate in a workshop.

0101	Benjamin Edwards MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 3312	

ARTT428 **Advanced Painting Studio; Painting**

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: ARTT320 or permission of the department. Students must pay a $40.00 laboratory studio fee. Repeatable to 12 credits. Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions.

0101	Emily Conover TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 3318	Lab

0201	Emily Conover TuTh 3:30pm - 6:00pm *Emphasizes acrylic paint.*	Seats (Total: 18) ASY 3316	Lab
0301	Richard Klank MW 9:00am - 11:30am	Seats (Total: 4) ASY 3322	Lab

ARTT428H **Advanced Painting Studio; Honors**

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Restricted to departmental honors students only. Students must pay a $40.00 laboratory studio fee.

0101	Emily Conover TuTh 12:30pm - 3:00pm	Seats (Total: 2) ASY 3318	
0201	Emily Conover TuTh 3:30pm - 6:00pm *Emphasizes Acrylic Paint*	Seats (Total: 2) ASY 3316	
0301	Richard Klank MW 9:00am - 11:30am	Seats (Total: 2) ASY 3322	
0401	Brandon Donahue TBA	Seats (Total: 2) ASY 3318	Lab

ARTT428X **Advanced Painting Studio; Advanced Painting Studio**

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Contact department for information to register for this course.

ARTT438A **Advanced Sculpture Studio; Metal Casting and Mixed Media**

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: Must have completed one 300-level sculpture course; or permission of instructor. Students must pay a $40.00 studio lab fee. Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	Steven Jones MW 12:30pm - 3:00pm	Seats (Total: 4) ASY 1310	

ARTT438D **Advanced Sculpture Studio; Wood and Mixed Media**

(Perm req)

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Restriction: Permission of ARHU-ART.

0101	Foon Sham	Seats (Total: 2)	
	TuTh 3:00pm - 5:30pm	ASY 1311	

ARTT438H **Advanced Sculpture Studio**

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Restricted to departmental honors students only. Students must pay a $40.00 laboratory studio fee.

0101	Foon Sham	Seats (Total: 2)	
	TuTh 3:00pm - 5:30pm	ASY 1311	

ARTT454 **Advanced Graphic Design Principles: Design in Society**

(Perm req)

Prerequisite: ARTT355 and ARTT356.

Focus on social responsibility and community activism. History and theory of propaganda and advocacy-based design. Students explore current design practices, work individually, and collaborate in teams with non-profits or other clients with community-based or socio-cultural agendas. Research and writing-intensive course.

$40 laboratory studio fee.

0101	Antwon Key	Seats (Total: 25)	
	TuTh 3:30pm - 6:00pm	ASY 2322	Lab

ARTT457 **Advanced Interactive Design**

(Perm req)

Prerequisite: ARTT357.

Advanced concepts and techniques of interactive design and interactive software. Examination of corporate, client-based, and public service-based interactive graphic design. Emphasis on web-based interactive design structures.

$40 laboratory studio fee.

0101	Alireza Vaziri Rahimi	Seats (Total: 20)	
	MW 12:30pm - 3:00pm	ASY 2322	Lab

ARTT460 **Seminar in Art Theory**

Restriction: Senior standing.

Exploration of relationship between content and processes of art in a contemporary multi-cultural context.

Contact department for information to register for this course.

ARTT468A **Seminar on the Interrelationship Between Art and Art Theory**

The relationship between a student's work and the theoretical context of contemporary art.

Contact department for information to register for this course.

ARTT468W **Seminar on the Interrelationship Between Art and Art Theory; History and Workshop of Latin America Photography**

The relationship between a student's work and the theoretical context of contemporary art.

Contact department for information to register for this course.

ARTT479A **Advanced Digital Media Studio; Code and Form**

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Students must pay a $40.00 laboratory studio fee.

0101	Cy Keener	Seats (Total: 15)
	MW 9:00am - 11:30am	ASY 3304

ARTT479C **Advanced Digital Media Studio**

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Students must pay a $40.00 studio lab fee. Basics of sound recording, mixing, and processing, as well as creative applications of video projection-based practices, performance and installation art. Theoretical concepts central to sound and video projection as artistic media are also introduced.

0101	Shannon Collis	Seats (Total: 14)
	MW 12:30pm - 3:00pm	ASY 3304

ARTT479D **Advanced Digital Media Studio; Immersive and Virtual Environments**

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Introduction to the uses of game development software in an artistic context. Practical examination of interactive, immersive and installation art as mediated through the context of real-time computer generated imagery and game engine methodologies. Students must pay a $40.00 studio lab fee.

0101	Mollye Bendell MW 6:00pm - 8:30pm	Seats (Total: 14) ASY 3304	

ARTT479H **Advanced Digital Media Studio; Honors Advanced Digital Media**

(Perm req)

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT370. Restricted to Departmental Honors students. Students must pay a $40.00 studio lab fee.

0101	Mollye Bendell MW 6:00pm - 8:30pm *Honors Immersive and Virtual Environments.*	Seats (Total: 2) ASY 3304	Lab
0201	Cy Keener MW 9:00am - 11:30am *Honors Code and Form.*	Seats (Total: 2) ASY 3304	Lab

ARTT480H **Honors Seminar**

(Perm req)

Team-taught seminar focusing on relationship between student's work and the theoretical context of contemporary art.

Students must pay $40.00 laboratory fee.

0101	Cy Keener F 10:00am - 1:30pm	Seats (Total: 7) ASY 2311

ARTT489I **Advanced Special Topics in Art; Digital Imaging**

(Perm req)

Advanced studio art and theory within the context of a special topic.

Prerequisite: ARTT354. Students must pay a $40.00 laboratory studio fee.

Contact department for information to register for this course.

ARTT489R **Advanced Special Topics in Art; New Media**

Advanced studio art and theory within the context of a special topic.

Contact department for information to register for this course.

ARTT489T **Advanced Special Topics in Art; The Contemporary Art World**

Advanced studio art and theory within the context of a special topic.

An examination of the contemporary art world s methods, values, and institutional power dynamics through analysis of recent major art exhibitions including the Whitney Biennial, the Venice Biennale, and Documenta 15. Students will collectively interrogate the current state of the art world and respond by proposing new, expanded, and/or alternative approaches.

0101	Jason Kass	Seats (Total: 14)
	MW 9:30am - 10:45am	ASY 3217

ARTT498A **Directed Studies in Studio Art**

(Perm req)

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT498B **Directed Studies in Studio Art**

(Perm req)

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT498H **Directed Studies in Studio Art; Honors Thesis**

(Perm req)

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Restricted to departmental honors students only. Prerequisite: permission of department. Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT498I **Directed Studies in Studio Art; Animation, Editing, and Special Effects**

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Contact department for information to register for this course.

ARTT618 **Drawing; Drawing**

(Perm req)

Independent studies in drawing for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT628 **Painting; Painting**

(Perm req)

Graduate painting for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT638 **Sculpture; Sculpture**

(Perm req)

Independent studies in sculpture for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT648 **Printmaking; Printmaking**

(Perm req)

Independent studies in printmaking for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698A **Directed Graduate Studies in Studio Art**

(Perm req)

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698B **Directed Graduate Studies in Studio Art**

(Perm req)

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698C **Directed Graduate Studies in Studio Art; Graduate Teaching Practicum**

(Perm req)

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT699A **Directed Graduate Studies in Studio Art**

(Perm req)

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT699B **Directed Graduate Studies in Studio Art**

(Perm req)

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT718 **Drawing; Drawing**

(Perm req)

Independent studies in drawing for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT728 **Painting; Painting**

(Perm req)

Independent studies in painting for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT738 **Sculpture; Sculpture**

(Perm req)

Independent studies in sculpture for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT748 **Printmaking; Printmaking**

(Perm req)

Independent studies in printmaking for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT768 **Graduate Colloquium**

(Perm req)

Examines various aspects of art, art theory and criticism in a contemporary and multi-cultural context. Relates student work to this context.

Students must pay a $60.00 laboratory studio fee.

0101	Benjamin Edwards W 6:30pm - 9:30pm	Seats (Total: 20) ONLINE	

ARTT798A **Directed Graduate Studies in Studio Art**

(Perm req)

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT798B **Directed Graduate Studies in Studio Art**

(Perm req)

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT799 **Master's Thesis Research**
Contact department for information to register for this course.

ASTR Astronomy Fall 2023

ASTR100 **Introduction to Astronomy**

Credit only granted for: ASTR100, ASTR101, or ASTR120.

An elementary course in descriptive astronomy, especially appropriate for non-science students. Topics include the Sun, Moon, planets, stars, and nebulae, galaxies, and evolution of the Universe.

0101	Benedikt Diemer TuTh 9:30am - 10:45am M 1:00pm - 1:50pm	Seats (Total: 40) PHY 1412 ATL 2400	 Discussion
0102	Benedikt Diemer TuTh 9:30am - 10:45am M 2:00pm - 2:50pm	Seats (Total: 40) PHY 1412 ATL 2400	 Discussion

0103	Benedikt Diemer TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 40) PHY 1412 ATL 2400	 Discussion
0104	Benedikt Diemer TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 40) PHY 1412 ATL 2400	 Discussion
0105	Benedikt Diemer TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 40) PHY 1412 ATL 2400	 Discussion
0106	Benedikt Diemer TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 40) PHY 1412 ATL 2400	 Discussion
FC01	James Hunt TuTh 6:00pm - 7:15pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ATL 2400 ATL 2400	 Discussion

ASTR101 **General Astronomy**

Credit only granted for: ASTR100, ASTR101, or ASTR120.

Descriptive astronomy, appropriate for non-science majors. Sun, moon, planets, stars, nebulae, galaxies and evolution. Laboratory exercises include use of photographic material, computer simulations, and standard laboratory equipment.

Discussion sections and lab sections do not meet the first week of classes. Attend lecture before coming to discussion or lab sections. Students must pay a $50.00 Laboratory Materials fee.

0101	Lee Mundy TuTh 11:00am - 12:15pm Tu 5:30pm - 7:30pm Tu 3:30pm - 4:20pm	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0102	Lee Mundy TuTh 11:00am - 12:15pm W 8:30am - 10:30am Tu 3:30pm - 4:20pm	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion

0103	Lee Mundy	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm W 11:00am - 1:00pm W 10:00am - 10:50am	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0104	Lee Mundy	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm Th 3:30pm - 5:30pm W 10:00am - 10:50am	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0105	Lee Mundy	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm W 1:00pm - 3:00pm W 11:00am - 11:50am	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0106	Lee Mundy	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm Th 8:30am - 10:30am W 11:00am - 11:50am	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0107	Lee Mundy	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm W 6:00pm - 8:00pm W 12:00pm - 12:50pm	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0108	Lee Mundy	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm Th 6:00pm - 8:00pm W 12:00pm - 12:50pm	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0109	Lee Mundy	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm F 9:00am - 11:00am W 1:00pm - 1:50pm	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0110	Lee Mundy	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm F 12:00pm - 2:00pm W 1:00pm - 1:50pm	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion

FC01	James Hunt TuTh 6:00pm - 7:15pm M 6:00pm - 8:00pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 12) ATL 2400 ATL 0254 ATL 2400	 Lab Discussion

ASTR120 **Introductory Astrophysics - Solar System**

Prerequisite: Must have completed or be concurrently enrolled in MATH140. Restriction: Must not have completed ASTR101 or ASTR100. Credit only granted for: ASTR100, ASTR101, or ASTR120.

For students majoring in astronomy or with a strong interest in science. Topics include development of astronomy, planetary orbits, electromagnetic radiation, telescopes as well as constituents and origin of the solar system (planets, satellites, comets, asteroids, meteoroids, etc.).

0101	Derek Richardson TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 30) ESJ 2212 AJC 2134	 Discussion
0102	Derek Richardson TuTh 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 30) ESJ 2212 AJC 2134	 Discussion

ASTR288 **Special Projects in Astronomy**

(Perm req)

Independent study, short research projects, tutorial reading, and assisting with faculty research and teaching under special supervision.

A faculty sponsor must be found by the students prior to enrollment.

Contact department for information to register for this course.

ASTR288I **Special Projects in Astronomy; Introduction to the Astronomy Major**

(Perm req)

Independent study, short research projects, tutorial reading, and assisting with faculty research and teaching under special supervision.

Prerequisite: permission of department.

0101	Andrew Harris, Melissa Hayes-Gehrke M 4:00pm - 4:50pm	Seats (Total: 20) ATL 1114
0201	Andrew Harris, Melissa Hayes-Gehrke Tu 4:00pm - 4:50pm	Seats (Total: 20) ATL 1114

ASTR300 **Stars and Stellar Systems**

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department.

Designed primarily for non-science majors. Study of stars-types, properties, evolution, and distribution in space; supernovae, pulsars, and black holes.

0101	Marvin Jones TuTh 11:00am - 12:15pm	Seats (Total: 60) ATL 2400	

ASTR310 **Observational Astronomy**

Prerequisite: ASTR121; and (PHYS171 or PHYS161). Or permission of CMNS-Astronomy department. Restriction: Must be in Astronomy program.

Introduction to current optical observational techniques, with brief coverage of infrared, ultraviolet, and x-ray techniques. Statistics, spherical trigonometry time, catalogs, geometrical and physical optics, telescopes, and optical instruments. Effects of the atmosphere. Practical work at the observatory using a CCD camera. Some nighttime observing sessions.

0101	Melissa Hayes-Gehrke TuTh 2:00pm - 3:15pm M 9:00am - 10:50am	Seats (Total: 15) AJC 2134 ATL 0224	 Lab
0102	Melissa Hayes-Gehrke TuTh 2:00pm - 3:15pm M 1:00pm - 2:50pm	Seats (Total: 15) AJC 2134 ATL 0224	 Lab

ASTR330 **Solar System Astronomy**

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or the General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department. Credit only granted for: ASTR330 or GEOL212.

Designed primarily for non-science majors. The structure of planets and of their atmospheres, the nature of comets, asteroids, and satellites. Comparison of various theories for the origin of the solar system. Emphasis on a description of recent data and interpretation.

0101	Timothy Livengood TuTh 12:30pm - 1:45pm	Seats (Total: 60) ATL 2400	

ASTR340 **Origin of the Universe**

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department.

Designed primarily for non-science majors. A study of our progression of knowledge about the universe. Topics include: early cosmological models, geocentric vs. heliocentric theory, curvature of space, Hubble's Law, Big Bang Theory, microwave background radiation, evolution of stars and galaxies, dark matter, active galaxies, quasars and the future of the universe.

0101	Sylvain Veilleux	Seats (Total: 60)
	TuTh 9:30am - 10:45am	ATL 2400

ASTR350 **Black Holes**

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department. Credit only granted for: ASTR398B or ASTR350. Formerly: ASTR398B.

Black holes are the most exotic prediction of Einstein's Theory of General Relativity and, amazingly, the Universe seems to manufacture these bizarre objects in copious numbers. As well as being the ultimate laboratory for studying the nature of space and time, they drive some of the most energetic and extreme phenomena known to astronomers (with quasars and gamma-ray bursts being just a couple of examples). In this introduction to the physics and astrophysics of black holes, we start by examining the basic physics of black holes, which fundamentally means understanding gravity. We then look at the nature of stellar-mass black holes and supermassive black holes. We will discuss the fairly recent realization that black holes may be crucial agents for regulating the growth of galaxies. Finally, we dive into the realm of theoretical physics and probe how black holes may provide a route for uncovering new laws of physics governing the structure of space and time.

0101	Christopher Reynolds	Seats (Total: 60)
	TuTh 2:00pm - 3:15pm	ATL 2400

ASTR380 **Life in the Universe - Astrobiology**

Designed primarily for non-science majors. Study of the astronomical perspective on the conditions for the origin and existence of life in the universe.

0101	Eliza Kempton	Seats (Total: 60)
	MW 11:00am - 12:15pm	ESJ 1215

ASTR399 **Honors Seminar**

(Perm req)

Credit according to work done.

Contact department for information to register for this course.

ASTR406 **Stellar Structure and Evolution**

Prerequisite: ASTR320; or permission of CMNS-Astronomy department. Credit only granted for: ASTR498N or ASTR406. Formerly: ASTR498N.

Study of stellar internal structure, nuclear reactions, and energy transport. Study of stellar evolution of both low-mass and high-mass stars, including the stellar end states of white dwarfs, neutron stars, and black holes.

Contact department for information to register for this course.

ASTR421 **Galaxies**

Prerequisite: ASTR121; and (PHYS271 and PHYS270; or PHYS273). Or permission of CMNS-Astronomy department.

Introduction to structure, kinematics, and dynamics of normal and peculiar galaxies. Quantitative descriptions of normal spiral galaxies (like our Milky Way) and elliptical galaxies will be followed by more exotic considerations such as interacting and merging galaxies, and active galactic nuclei.

0101	Richard Mushotzky TuTh 2:00pm - 3:15pm	Seats (Total: 30) ATL 2428

ASTR430 **The Solar System**

Prerequisite: ASTR121; and (PHYS271 and PHYS270; or PHYS273). Or permission of CMNS-Astronomy department.

Formation and evolution of the Solar System. Planetary surfaces, interiors, atmospheres, and magnetospheres. Asteroids, comets, planetary satellites, and ring systems. Emphasis on using basic physics to understand observed properties of the Solar System. Intended for students majoring in the physical sciences.

0101	Douglas Hamilton TuTh 12:30pm - 1:45pm	Seats (Total: 30) ATL 2428

ASTR498 **Special Problems in Astronomy**

(Perm req)

Research or special study. Credit according to work done.

Contact department for information to register for this course.

ASTR601 **Radiative Processes**

(Perm req)

Restriction: Permission of CMNS-Astronomy department.

Emission, absorption, and scattering of radiation by matter, with astrophysical applications. Thermodynamics and statistical mechanics: LTE, Boltzmann, and Saha equations; radiative transfer; atomic and molecular radiation; plasma radiation and transfer: bremsstrahlung, synchrotron emission, Compton scattering.

0101	Michael Miller TuTh 2:00pm - 3:15pm	Seats (Total: 20) ATL 0201

ASTR610 **Astronomical Instrumentation and Techniques**

(Perm req)

Restriction: Permission of CMNS-Astronomy department.

Review of Maxwell's equations; designs of telescopes, spectrographs, modern detectors; basic concepts for radio detectors and telescopes; interferometry and data processing.

0101	Alberto Bolatto MW 2:00pm - 3:15pm	Seats (Total: 20) ATL 0201

ASTR622 **Cosmology**

(Perm req)

Restriction: Permission of CMNS-Astronomy department.

Introduction to modern cosmology. Topics include the large scale structure of the universe, cosmological models, the Big Bang, the cosmic microwave background, the nature of dark matter, and galaxy formation.

0101	Massimo Ricotti TuTh 12:30pm - 1:45pm	Seats (Total: 20) ATL 0201

ASTR688B **Special Topics in Modern Astronomy; Current Astronomy Research**

(Perm req)

Special topics such as extragalactic radio sources, plasma astrophysics, the H.R. diagram, chemistry of the interstellar medium, radiophysics of the sun.

0101	Andrew Harris W 3:30pm - 5:30pm	Seats (Total: 30) ATL 2400

ASTR695 **Introduction to Research**

(Perm req)

Provides an introduction to research programs in the Department of Astronomy and a forum to explore possible research projects. Aimed at incoming graduate students.

0101	Eliza Kempton M 10:00am - 10:50am	Seats (Total: 20) PSC 1148

ASTR699 **Special Problems in Advanced Astronomy**

(Perm req)

Contact department for information to register for this course.

ASTR799 **Master's Thesis Research**
Contact department for information to register for this course.

ASTR898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ASTR899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BCHM Biochemistry Fall 2023

The College of Computer, Mathematical and Natural Sciences enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course. Registration in course sections which begin with "SEF" are restricted to Post-Baccalaureate students who enroll through the Science in the Evening Program in the College of Computer, Mathematical and Natural Sciences. Please note that this class is charged at the regular part-time tuition rate (on a per credit basis), even for full- time students. To register or to learn more about the Science in the Evening program, you must contact the Life Sciences Outreach and Special Programs Office at (301) 405-6892.*

BCHM461 **Biochemistry I**

Prerequisite: Minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. Credit only granted for: BCHM461 or BCHM463.

First semester of a comprehensive introduction to modern biochemistry. Structure, chemical properties, and function of proteins and enzymes, carbohydrates, lipids, and nucleic acids. Basic enzyme kinetics and catalytic mechanisms.

0101	Jinwoo Lee TuTh 9:30am - 10:45am	Seats (Total: 109) CHM 1402
0102	Paul Paukstelis MW 4:00pm - 5:15pm	Seats (Total: 115) CHM 1402
0103	Christopher Capp TuTh 12:30pm - 1:45pm	Seats (Total: 120) CHM 1402

BCHM462 **Biochemistry II**

Prerequisite: Minimum grade of C- in BCHM461. Credit only granted for: BCHM462 or BCHM463.

A continuation of BCHM 461. Metabolic pathways and metabolic regulation, energy transduction in biological systems, enzyme catalytic mechanisms.

0102	Douglas Julin MWF 11:00am - 11:50am	Seats (Total: 100) CHM 1402	

BCHM463 Biochemistry of Physiology

Prerequisite: Minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. Credit only granted for: BCHM461, BCHM462 or BCHM463.

A one-semester introduction to general biochemistry. A study of protein structure, enzyme catalysis, metabolism, and metabolic regulation with respect to their relationship to physiology.

0101	Bonnie Dixon TuTh 11:00am - 12:15pm	Seats (Total: 93) CHM 1402	
0103	Christiana Guest MWF 12:00pm - 12:50pm	Seats (Total: 93) CHM 1402	
ESG1	Heather Tienson-Tseng W 10:00am - 10:50am F 10:00am - 11:40am *Registration is restricted to Biological Sciences-Shady Grove majors.*	Seats (Total: 50) BLD4 4321 BLD4 4321	
SEF1	Christopher Capp M 6:30pm - 9:30pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 40) CHM 2201	

BCHM464 Biochemistry Laboratory

Prerequisite: BCHM461 or BCHM463; and a grade of C- or better in the prerequisite is required for all College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: BCHM465. Restriction: BCHM, CHEM, and Nutritional Sciences majors have first priority, followed by other life science majors.

Biochemical and genetic methods for studying protein function. Site-directed mutagenesis and molecular cloning, protein purification, enzyme activity assays, computer modeling of protein structure.

Students must pay a $40.00 laboratory materials fee.

0101	Christopher Capp Tu 11:00am - 12:15pm Th 12:30pm - 5:30pm	Seats (Total: 18) ESJ B0320 ESJ 0316	 Lab
0102	Christopher Capp Tu 11:00am - 12:15pm W 12:00pm - 5:00pm	Seats (Total: 18) ESJ B0320 ESJ 0316	 Lab

BCHM465 **Biochemistry III**

Prerequisite: BCHM461 or BCHM463; and a grade of C- or better in the prerequisite is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Recommended: BCHM462.

CORE Capstone (CS) Course. An advanced course in biochemistry. Biochemical approach to cellular information processing. DNA and RNA structure. DNA replication, transcription, and repair. Translation of mRNA to make proteins.

0101	Theodore Dayie	Seats (Total: 45)
	TuTh 8:00am - 9:15am	CHM 1228

BCHM661 **Nucleic Acids I**

Prerequisite: BSCI410 and BCHM465.

Topics covered: Chemistry and structure of DNA and RNA, from nucleotides to chromatin, chromosomes, and genomes, and some methods for studying, synthesizing, sequencing and manipulating nucleic acids. Rudimentary genomics and bioinformatics. DNA Biology: selected aspects of the biochemistry and regulation of DNA replication, repair, and recombination, and how these processes interact with each other.

0101	Jason Kahn, Paul Paukstelis	Seats (Total: 45)
	Meets August 28, 2023 - October 17, 2023	
	MWF 9:30am - 10:50am	CHM 1224

BCHM662 **Nucleic Acids II**

Prerequisite: BCHM661.

Topics covered: Interactions between nucleic acids and ligands such as cations, drugs, and especially proteins. Sources of binding affinity and specificity. Selection-amplification methods. Description of several classes of protein-nucleic acids complexes. DNA/RNA catalysis, the origin of life, mobile genetic elements.

0101	Paul Paukstelis	Seats (Total: 45)
	Meets October 18, 2023 - December 11, 2023	
	MWF 9:30am - 10:50am	CHM 1224

BCHM669A **Special Topics in Biochemistry; Methods for Biomolecular Structure Determination in Solution**

Introduction to modern methods for determining structures of biological macromolecules in solution, ranging from low-resolution methods, such as small-angle X-ray and neutron scattering (SAXS/SANS), to high-resolution nuclear magnetic resonance (NMR). The course covers detailed theoretical background and applications of these methods to study biomolecular structure and dynamics and macromolecular interactions.

0101	David Fushman	Seats (Total: 20)
	MW 11:00am - 12:15pm	BSB 2118

BCHM671 **Protein Chemistry and Enzymic Catalysis**

Prerequisite: BCHM461; or students who have taken courses with comparable content may contact the department.

Principles of protein structure, folding, and function, experimental characterization of structure, active sites, enzyme mechanisms and kinetics.

0101	Yanxin Liu	Seats (Total: 35)
	TuTh 9:30am - 10:50am	BSB 2118

BCHM698 **Literature Seminar in Biochemistry**

Students will prepare and present a departmental seminar based on a topic in the current biochemical research literature.

0101	Lai-Xi Wang	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM699 **Special Problems in Biochemistry**

Laboratory experience in a research environment. Restricted to students in the non-thesis M.S. option.

Open only to non-thesis M.S. degree candidates.

Contact department for information to register for this course.

BCHM799 **Master's Thesis Research**
Contact department for information to register for this course.

BCHM889A **Seminar; Biochemistry**

0101	Jason Kahn	Seats (Total: 75)
	Tu 11:00am - 12:15pm	KEB 1110

BCHM889C **Seminar; Allostery in DNA Binding**

(Perm req)

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM889D **Seminar; Enzymology Recombination**

(Perm req)

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

BCHM889F **Seminar; Antimicrobial Peptides**

(Perm req)

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

BCHM889J **Seminar; Nucleic Acid Structures**

(Perm req)

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

BCHM889M **Seminar; Modern Methods in NMR and Structural Biology**

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 40)

BCHM889P **Seminar; Structure and Reactivity of Biopolymers**

(Perm req)

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

BCHM898 **Pre-Candidacy Research**
Contact department for information to register for this course.

BCHM899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BDBA Doctor of Business Administration Fall 2023

BDBA808P **Special Topics in Information Systems; Data Processing and Analysis in Python**

Special topics specific to the Information Systems doctoral field of study.

Cross-listed with BDBA808P. Credit only granted for BMSO758P or BDBA808P.

MS21	John Bono	Seats (Total: 25)
	Meets August 28, 2023 - December 15, 2023	
	W 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BDBA820 **Applied Economics for Business Research**

Restriction: Must be in Doctor of Business Administration (BDBA) program; or permission of the Robert H. Smith School of Business.

Investigating the implications of the major findings of behavioral economics for policymakers. Analysis of the ways in which individuals make decisions that systematically depart from the standard model, which assumes perfect rationality, perfect selfishness, and perfect willpower. Students will develop an understanding of how models are constructed, and how this forms the basis for empirical estimation strategies. We first discuss concepts such as endowment effect, loss aversion, and status-quo bias. Then we introduce uncertainty. The standard model of decision-making under uncertainty is the expected utility model. We then go on to describe some empirical evidence from both economics and psychology to illustrate violations of the expected utility model. Next, we will discuss intertemporal choice. After introducing the standard model of discounting, we will again discuss some observed violations of the standard model in the data.

0101	Erkut Ozbay	Seats (Total: 12)
	Meets September 4, 2023 - December 9, 2023	
	Sa 8:30am - 1:15pm	VMH 4335

BDBA822 **Quantitative Research Methods**

Restriction: Must be in Doctor of Business Administration (BDBA) program; or permission of the Robert H. Smith School of Business.

This is a course in basic statistics. Statistical methodologies are increasingly used in various disciplines, e.g., data science, applied statistics, business, and computational social science. The main goal of this course is to provide students with an introduction to different types of quantitative research methods and statistical techniques. This course primarily covers two components: 1) methods for quantitative research, and 2) quantitative statistical methods for data analysis. With these, we hope you will obtain knowledge necessary to do high quality scholarly research and more efficient and effective practice in your daily tasks. In particular, it involves learning statistical inference under which you should be able to digest publications about new methods, implement these methods, apply them to your data, interpret results, and explain them to others. In addition, we also expect you to know how to write and publish your novel work in some journals.

0101	Kunpeng Zhang **Meets September 4, 2023 - December 9, 2023** F 2:15pm - 7:00pm	Seats (Total: 12) VMH 4335

BDBA858A **Special Topics in Marketing; Customer Analysis**

(Perm req)

Special topics specific to the Marketing doctoral field of study.

Cross-listed with BUMK724. Credit only granted for BUMK724 or BDBA858A.

0501	Rosellina Ferraro **Meets August 28, 2023 - December 15, 2023** MW 12:30pm - 1:45pm	Seats (Total: 0) VMH 1330

BDBA858B **Special Topics in Marketing; Business Policies and Ethics**

(Perm req)

Special topics specific to the Marketing doctoral field of study.

Cross-listed with BUMK760. Credit only granted for BUMK760 or BDBA858B.

0501	Wendy Moe **Meets August 28, 2023 - December 15, 2023** TuTh 1:00pm - 1:50pm	Seats (Total: 0) VMH 1412

BDBA858C **Special Topics in Marketing; Consumer Behavior**

Special topics specific to the Marketing doctoral field of study.

Cross-listed with BMGT858C. Credit only granted for BMGT858C or BDBA858C.

0101	Amna Kirmani W 9:00am - 11:40am	Seats (Total: 12) VMH 3332

BDBA858M **Special Topics in Marketing; Marketing Strategy**

(Perm req)

Special topics specific to the Marketing doctoral field of study.

Cross-listed with BUMK720. Credit only granted for BUMK720 or BDBA858M.

0501	Judy Frels **Meets August 28, 2023 - December 15, 2023** TuTh 5:00pm - 6:15pm	Seats (Total: 0) VMH 1335	

BDBA858P **Special Topics in Marketing; Innovation & Product Development**

Special topics specific to the Marketing doctoral field of study.

Cross-listed with BUSM706. Credit only granted for BUSM706 or BDBA858P.

0101	Yogesh Joshi **Meets October 23, 2023 - December 15, 2023** TuTh 10:00am - 11:50am	Seats (Total: 35) VMH 1520	

BDBA858T **Special Topics in Marketing; Organizational Theory**

Special topics specific to the Marketing doctoral field of study.

Cross-listed with BMGT878T. Credit only granted for BMGT878T or BDBA858T.

0101	David Kirsch **Meets August 28, 2023 - October 16, 2023** W 1:00pm - 4:35pm	Seats (Total: 12) VMH 2509	

BIOE Bioengineering Fall 2023

BIOE120 **Biology for Engineers**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in MATH140. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Introduction to the functions and interactions of biological systems from a quantitative perspective. Introduction to the modern experimental techniques and methods of data analysis. Roles for bioengineers in biology, and the role of biology in bioengineering will be elucidated.

Students will be introduced to the functions and interactions of biological systems from a quantitative perspective. They will also be encourage d to solve problems through active inquiry, critical analysis,and creat ivity. Finally, roles for bioengineers in biology, and the role of biology in bioengineering will be elucidated.

0101	Brian Blair MWF 12:00pm - 12:50pm Th 5:00pm - 5:50pm	Seats (Total: 50) CCC 1100 IRB 2107	 Discussion

0201	Catherine Kuo TuTh 3:30pm - 4:45pm F 11:00am - 11:50am	Seats (Total: 50) KEB 1200 CSI 1121	 Discussion

BIOE121 **Biology for Engineers Laboratory**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in BIOE120. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Bioengineering encompasses numerous sub-disciplines that apply engineering principles to analyze biological systems and that utilize engineering design strategies to solve biological and biomedical problems. This course is aimed at providing students with the opportunity to learn how biology and engineering can synergistically contribute to our understanding of such problems, and to gain hands-on experience in basic techniques relevant to Bioengineering.

0101	Brian Blair M 4:00pm - 4:50pm W 9:30am - 11:20am	Seats (Total: 20) KEB 1110 AJC 1121	 Lab
0102	Brian Blair M 4:00pm - 4:50pm W 3:00pm - 4:50pm	Seats (Total: 20) KEB 1110 AJC 1121	 Lab
0103	Brian Blair M 4:00pm - 4:50pm Th 9:30am - 11:20am	Seats (Total: 20) KEB 1110 AJC 1121	 Lab
0104	Brian Blair M 4:00pm - 4:50pm Th 2:00pm - 3:50pm	Seats (Total: 20) KEB 1110 AJC 1121	 Lab

BIOE221 **Academic and Career Planning**

(Perm req)

Prerequisite: BIOE120 and BIOE121. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Provides practical tools to help Bioengineering majors think critically about their goals and career paths. Guides Bioengineering students through accessing useful resources both on- and off-campus.

0101	Abby Shantzis, Rachel Chang Tu 4:00pm - 4:50pm	Seats (Total: 30) AJC 2119	

0201	Rachel Chang, Abby Shantzis Tu 4:00pm - 4:50pm	Seats (Total: 30) AJC 2134	

BIOE232 **Bioengineering Thermodynamics**

(Perm req)

Prerequisite: PHYS261 and PHYS260. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE232, ENES232, ENME232, or ENME320.

A quantitative introduction to thermodynamic analysis of bioengineering systems. Bioengineering encompasses a wide range of applications from nanoscale interactions (e.g. reactions between molecules), to cellular interactions (e.g. membrane electrical currents), to overall balances on organisms, all the way to large scale manufacturing. Each of these applications (and many others not mentioned) involve energy interactions which is the domain of thermodynamics. The basic laws of thermodynamics will be introduced and explained through a series of examples related to bioengineering systems.

0101	Silvina Matysiak TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 30) KEB 1200 AJC 2121	Discussion
0102	Silvina Matysiak TuTh 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 30) KEB 1200 AJC 2121	Discussion

BIOE241 **Biocomputational Methods**

(Perm req)

Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Application of computer technology to biological and natural resource systems considering engineering aspects. Designed to help students in the use of computer technology for problem solving. The course will cover 4-5 software packages important for later use by the student.

0101	Kyung Koh MF 3:00pm - 3:50pm W 3:00pm - 3:50pm	Seats (Total: 30) PLS 1130 KEB 2107	Discussion
0102	Kyung Koh MF 3:00pm - 3:50pm W 5:00pm - 5:50pm	Seats (Total: 30) PLS 1130 KEB 2111	Discussion

BIOE331 **Biofluids**

(Perm req)

Prerequisite: MATH246, BIOE120, BIOE121, BIOE241, and BIOE371; and must have completed or be concurrently enrolled in BIOE232. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE331, ENCE305, ENFP300 or ENME331.

Principles and applications of fluid mechanics with a focus on bioengineering topics. Content includes conservation of mass, momentum, and energy, as well as the application of these fundamental relations to hydrostatics, control volume analysis, internal and external flow, and boundary layers. Applications to biological and bioengineering problems such as tissue engineering, bioprocessing, imaging, and drug delivery.

0101	Deborah Goldberg	Seats (Total: 60)	
	TuTh 12:30pm - 1:45pm F 12:00pm - 12:50pm	KEB 1110 EGR 1108	Discussion

BIOE340 **Modeling Physiological Systems and Lab**

(Perm req)

Prerequisite: BSCI330, BIOE120, BIOE121, BIOE241, and MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE340 or (BSCI440 and BSCI441).

Topics covered will include cell and general physiology, membrane physiology, blood cells and clotting, circulation, metabolism, respiration, and the nervous system. A lab component will also be included.

0101	John Fisher	Seats (Total: 30)	
	TuTh 3:30pm - 4:45pm Th 5:00pm - 6:30pm	KEB 1110 KEB 2111	Lab
	Lab will meet in either KEB2107 or KEB2111.		
0102	John Fisher	Seats (Total: 30)	
	TuTh 3:30pm - 4:45pm Th 5:00pm - 6:30pm	KEB 1110 KEB 2107	Lab

BIOE371 **Linear Systems and Ordinary Differential Equations for Bioengineering Applications**

(Perm req)

Prerequisite: BIOE241; and must have completed or be concurrently enrolled in MATH246. Restriction: Permission on ENGR-Fischell Department of Bioengineering department.

This class utilizes fundamentals in linear systems, including eigenvalues and eigenvectors, as well as linear differential equations, to study various problems in bioengineering and biological systems, with a particular emphasis on feedback, stability, controllability, and control design.

0101	Kyung Koh TuTh 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 30) KEB 1200 AJC 2119	Discussion
0102	Kyung Koh TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 30) KEB 1200 EGR 1104	Discussion

BIOE372 **Biostatistics for Experimental Design and Data Analysis**

(Perm req)

Prerequisite: BIOE120, BIOE121, and BIOE241. Recommended: MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE372 or STAT464.

This course will instruct students in the fundamentals of probability and statistics through examples in biological phenomenon, the design of bioengineering experiments, and clinical data analysis. Fundamentals covered in the course include probability distributions, hypothesis testing, power analysis, regression analysis, and correlation analysis.

0101	Brian Blair MWF 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 30) KEB 1200 AJC 2119	Discussion
0102	Brian Blair MWF 11:00am - 11:50am F 2:00pm - 2:50pm	Seats (Total: 30) KEB 1200 AJC 2119	Discussion

BIOE389M **Special Projects in Bioengineering; Research Skills and Professional Development for MARC Scholars**

(Perm req)

Exploring a variety of projects in Bioengineering.

Restriction: Must be a student in the Mazimizing Acces to Research Careers (MARC) Program. The course will provide instruction and opportunities for development in research skills and scientific communication, along with individualized preparation towards graduate school and a career in biomedical research.

0101	Kimberly Stroka M 1:00pm - 1:50pm	Seats (Total: 10) AJC 2134	

BIOE399 **Independent Study in Bioengineering**

(Perm req)

Independent study.

Prerequisite: permission of department.

Contact department for information to register for this course.

BIOE399H **Independent Study in Bioengineering**

(Perm req)

Independent study.

Contact department for information to register for this course.

BIOE413 **Stem Cell Engineering**

(Perm req)

Prerequisite: BIOE241, BIOE120, BIOE121, and MATH246; and must have completed or be concurrently enrolled in BIOE340. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Jointly offered with: BIOE613. Credit only granted for: BIOE413, BIOE689J, or BIOE613.

Provides an introduction to the role of stem cells in tissue growth and development, the engineering of stem cells and their environments for regenerative medicine applications, and disease modeling. Topics covered will include basic stem cell biology and mechanobiology; experimental methods for growing, differentiating, studying, and characterizing stem cells; stem cell integration into engineered microenvironments (e.g., tissue scaffolds and biomaterials, organ-on-chip devices, 3D-printed biomaterials); stem cell engineering in clinical applications and disease models; and ethical, commercialization, and regulatory issues in the field of stem cell engineering.

0101	Kimberly Stroka TuTh 2:00pm - 3:15pm	Seats (Total: 40) ESJ 1215	

BIOE420 **Bioimaging**

(Perm req)

Prerequisite: MATH246, BIOE120, BIOE121, and BIOE241. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Examines the physical principles behind major biomedical imaging modalities and new ways of using images for bio-related applications.

0101	Yang Tao TuTh 9:30am - 10:45am W 9:00am - 9:50am	Seats (Total: 30) PLS 1130 AJC 2134	Discussion
0102	Yang Tao TuTh 9:30am - 10:45am W 12:00pm - 12:50pm	Seats (Total: 30) PLS 1130 AJC 2119	Discussion

BIOE437 **Computer-Aided Design in Bioengineering**

(Perm req)

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246; or permission of ENGR-Fischell Department of Bioengineering department. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE437, BIOE689V, ENME414, ENME272, or ENAE488D. Formerly: BIOE689V.

Introduction to Computer-Aided Design (CAD). Lecture topics will summarize design methodology, review best-practices in hardware development, and discuss engineering applications. The course will culminate in a student-selected project leveraging CAD.

0101	Frank Modica W 6:00pm - 9:00pm	Seats (Total: 20) KEB 2111

BIOE442 **Python: Introduction to Programming and Data Analysis**

(Perm req)

Prerequisite: BIOE241, BIOE120, BIOE121, and MATH241; or permission of ENGR-Fischell Department of Bioengineering department. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE489A or BIOE442. Formerly: BIOE489A.

Provides an introduction to structured programming, computational methods, and data analysis techniques with the goal of building a foundation allowing students to confidently address problems in research and industry. Fundamentals of programming, algorithms, and simulation are covered from a general computer science perspective, while the applied data analysis and visualization portion makes use of the Python SciPy stack.

0101	Jonathan Resop MWF 4:00pm - 4:50pm	Seats (Total: 30) KEB 2107

BIOE453 **Biomaterials**

(Perm req)

Prerequisite: CHEM231, MATH246, CHEM232, BIOE120, BIOE121, and BIOE241. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE453, CHBE457, or ENMA425.

Examination of the structure and function of natural biomaterials, and cell-extracellular matrix interactions. Study physical properties of synthetic biomaterials for biomedical applications. Understanding molecular level interactions between biomolecules and biomaterials to design novel biomaterials with desirable characteristics. Application of biomaterials as implants, drug delivery systems, biosensors, engineered materials such as artificial skin and bone growth scaffolds will be covered.

0102	Xiaoming He TuTh 2:00pm - 3:15pm M 12:00pm - 12:50pm	Seats (Total: 30) KEB 1200 AJC 2119	 Discussion

BIOE457 **Biomedical Electronics & Instrumentation**

(Perm req)

Prerequisite: BIOE120, BIOE121, BIOE241, PHYS261, MATH246, and PHYS260. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Students learn fundamental concepts of electronics, assembly of electronic components into functional circuits, and integration of functional electronic devices and circuits into a system. In the lab component, students will learn to assemble and evaluate circuits and systems.

0101	Ian White MWF 10:00am - 10:50am W 12:00pm - 1:50pm	Seats (Total: 30) ESJ 0215 AJC 1120	 Lab
0102	Ian White MWF 10:00am - 10:50am W 3:30pm - 5:20pm	Seats (Total: 30) ESJ 0215 AJC 1120	 Lab

BIOE461 **Synthetic Biology and Biological Engineering**

(Perm req)

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246; or permission of ENGR-Fischell Department of Bioengineering department. Recommended: Completion of BSCI222 and/or BSCI330 recommended. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Students are introduce to the scientific foundation and concepts of synthetic biology and biological engineering. Current examples that apply synthetic biology to fundamental and practical challenges will be emphasized. The course will also address the societal issues of synthetic biology, and briefly examine interests to regulate research in this area.

0101	Beatrice Kondo MWF 1:00pm - 1:50pm	Seats (Total: 30) AJC 2119	

BIOE462 **Therapeutic Development and Delivery**

(Perm req)

Prerequisite: BIOE120, BIOE121, BIOE241, MATH246, and BSCI330; and must have completed or be concurrently enrolled in BIOE340. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE489P or BIOE462. Formerly: BIOE489P.

The ultimate purpose of the pharmaceutical and biotechnology industries is the development and delivery of therapeutics. This course covers fundamentals of engineering and the pharmaceutical sciences related to therapeutics, including basic pharmaceutics/drug delivery, pharmacokinetics, biomolecular kinetics, and regulatory issues. Specific focus is placed on biotherapeutics, including antibodies and protein engineering,RNA and DNA therapeutics (gene therapy and RNAi), extracellular vesicle biotechnology (exosomes), and cell-based therapies, including stem cells. The use of delivery technologies to enable therapeutics (e.g. nanomedicine) will also be discussed.

0101	Steven Jay TuTh 11:00am - 12:15pm	Seats (Total: 60) ESJ 1215

BIOE485 **Capstone Design I: Entrepreneurship, Regulatory Issues, and Ethics**

(Perm req)

Prerequisite: 21 credits in BIOE courses; and must have completed or be concurrently enrolled in BIOE457. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and senior standing; and must be in Engineering: Bioengineering program.

This is the first part of a two-semester senior capstone design course which covers principles involved in engineering design, design approaches, economics of design, ethics in engineering, and patent regulations. It also helps students learn team work and write design project proposals under the mentorship of a faculty advisor.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	Yang Tao MW 2:00pm - 3:15pm	Seats (Total: 130) EGR 1202

BIOE488B **Research Methods in Bioengineering; Biotechnology**

(Perm req)

Exploring a variety of research methods in the field of Bioengineering.

Prerequisites: BIOE120, BIOE121, and BSCI330. Restriction: permission of department. This course prepares students for a broad range of opportunities by delivering a practical, hands-on experience appropriate for a student interested in biotechnology. Students will gain exposure to: recombinant DNA, cell culture, transfection/transformation, and molecular biology assayssuch as: PCR/sequencing, gels/blots, reporter gene expression. This course provides students with a working research laboratory environment experience.

0101	Beatrice Kondo M 3:30pm - 5:20pm W 5:00pm - 6:15pm	Seats (Total: 8) AJC 1121 AJC 1121

BIOE489G **Special Topics in Bioengineering; Immunoengineering**

(Perm req)

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246 or Permission of the Fischell Department of Bioengineering. Immunoengineering harnesses immunological functions to design treatments for various diseases including cancer. We will explore how engineering technologies have been used to study and modulate immune functions, techniques used in immunology and immune engineering, and new developments in the field. The course will largely focus on current literature in immune engineering topics.

0101	Katharina Maisel	Seats (Total: 15)	
	TuTh 3:30pm - 4:45pm	AJC 2132	

BIOE489H **Special Topics in Bioengineering; Bioengineering Honors Seminar**

(Perm req)

Exploring a variety of topics with Bioengineering.

Restricted to students in the BIOE Honors Proram.

0101	Gregg Duncan	Seats (Total: 30)	
	M 3:30pm - 4:30pm	AJC 2119	

BIOE489J **Special Topics in Bioengineering; Advanced Manufacturing Laboratory (AML)**

(Perm req)

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE457. An interdisciplinary course designed to provide students with an overview of key processes, technology, and manufacturing techniques involved in fabricating advanced devices and systems. Students will be exposed to state-of-the-art fabrication technologies including soft lithography, 3D printing, hybrid manufacturing, material functionalization, and systems integration. In addition to developing a theoretical understanding in the classroom, students will gain hands-on fabrication and characterization experience of systems that can interface with complex environments.

0101	Kevin Daniels	Seats (Total: 4)	
	MW 9:00am - 9:50am	CHE 2116	
	F 9:00am - 11:50am	KEB 1135	Lab

BIOE489K **Special Topics in Bioengineering; Pulmonary Engineering**

(Perm req)

Exploring a variety of topics with Bioengineering.

Prerequisites: BIOE120 and BIOE121; or Permission of the Fischell Department of Bioengineer Bioengineering This course will overview the biology and physiology of the lung to provide a basis for design of therapies and medical devices for pulmonary applications. Specific topics to be covered include inhaled drug delivery, lung-on-a-chip disease models, and regenerative approaches for lung repair. Recent literature highlighting advances in pulmonary bioengineering will be discussed throughout the course.

0101	Gregg Duncan TuTh 12:30pm - 1:45pm	Seats (Total: 20) CHE 2145

BIOE489T **Special Topics in Bioengineering; Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE120. Credit only granted for: BIOE489T or CHBE47

0101	Deborah Goldberg TuTh 9:30am - 10:45am	Seats (Total: 15) AJC 2119

BIOE489Y **Special Topics in Bioengineering; Engineering Design for Global Health**

(Perm req)

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246. Many medical technologies are not available in low and middle-income countries due to the cost, infrastructure, and medical expertise required to implement and sustain them. There is tremendous potential to increase access to health care through developing more affordable biomedical technologies, but effective design requires deep understanding of the problem. This course will introduce the human-centered design framework and how it can be applied to design new biomedical technologies to solve challenges in global health.

0101	Jenna Mueller TuTh 12:30pm - 1:45pm	Seats (Total: 22) AJC 2134

BIOE605 **BIOE Graduate Studies I**

(Perm req)

Restriction: Must be in ENGR: PhD Only-Bioengineering (Doctoral) program.

Introduction to the bioengineering graduate program. Students gain exposure to departmental research through lab rotation and to current research in the field through seminar. Students will also gain preparation and guidance on other first-year academic requirements.

0101	Steven Jay	Seats (Total: 30)	
	F 10:00am - 10:50am	AJC 2132	
	F 9:00am - 9:50am	AJC 2132	Discussion

BIOE608 **Bioengineering Seminar Series**

(Perm req)

A variety of topics related to Bioengineering will be presented in weekly seminars.

For BIOE majors only.

0101	Katharina Maisel, Jenna Mueller	Seats (Total: 40)
	F 9:00am - 10:50am	AJC 2121

BIOE610 **Mathematical Methods in Bioengineering**

(Perm req)

Restriction: Permission of ENGR-Fischell Department of Bioengineering.

From diffusion problems to light-matter interactions, students will learn basic skills needed to create mathematical models in bioengineering. Students will first be exposed to simplified problems in analytical form, and then more complex problems with the help of computer software programs.

0101	Jose Aranda-Espinoza	Seats (Total: 30)
	TuTh 8:00am - 9:15am	AJC 2132

BIOE612 **Physiological Evaluation of Bioengineering Designs**

(Perm req)

Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Bioengineering designs of biomaterials, biomedical devices, imaging and drug delivery agents, tissue engineering, prosthesis (among others), offer the opportunity to improve health care. This course is aimed at providing knowledge to lead bioengineering designs on the basis of biocompatibility and to provide tools to assess their patho-physiological impact in biological systems.

0101	Huang Chiao Huang	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	AJC 2132

BIOE613 **Stem Cell Engineering**

(Perm req)

Restriction: Permission of ENGR-Fischell Department of Bioengineering. Jointly offered with: BIOE413. Credit only granted for: BIOE489J, BIOE413, BIOE689J or BIOE613. Formerly: BIOE689J.

Provides an introduction to the role of stem cells in tissue growth and development, the engineering of stem cells and their environments for regenerative medicine applications, and disease modeling. Topics covered will include basic stem cell biology and mechanobiology; experimental methods for growing, differentiating, studying, and characterizing stem cells; stem cell integration into engineered microenvironments (e.g., tissue scaffolds and biomaterials, organ-on-chip devices, 3D-printed biomaterials); stem cell engineering in clinical applications and disease models; and ethical, commercialization, and regulatory issues in the field of stem cell engineering.

0101	Kimberly Stroka TuTh 2:00pm - 3:15pm	Seats (Total: 13) ESJ 1215

BIOE651 **Applied Mathematics in Bioengineering**

(Perm req)

Restriction: Restricted to Master's of Engineering - Bioengineering students; or permission of Fischell Department of Bioengineering. Credit only granted for: BIOE651 or BIOE658M. Formerly: BIOE658M.

Students will use and learn mathematical concepts that are directly relevant to their career as a bioengineer. They will apply these concepts to various bioengineering applications while also learning industry-relevant analytical software.

0101	Austin Tapp MW 5:30pm - 6:45pm	Seats (Total: 15) ONLINE
BI01	Austin Tapp Class time/details on ELMs	Seats (Total: 15) ONLINE

BIOE658J **Special Topics in Bioengineering (M.Eng.); Introduction to Programming and Data Analysis using Python**

(Perm req)

Special topics in Bioengineering.

Restriction: For Master of Engineering students only or with permission of department. Aims to provide an introduction to structured programming, computational methods, and data analysis techniques, with the goal of equipping students with a foundation that allows them to confidently tackle problems in research and industry. The course begins with basic programming concepts such as data types, operators, logical flow control, debugging, and computational complexity using Python. It then delves into more advanced topics such as dynamic programming, algorithms, and object-oriented programming. Students will also be introduced to effective tools and libraries for data analysis and visualization. Towards the end of the course, there will be an overview of machine learning, artificial intelligence, neural networks, and convolution neural networks, along with some useful libraries and modules.

0101	Bahaa Ghammraoui TuTh 5:00pm - 6:15pm	Seats (Total: 15) Location: TBA

BI01	Bahaa Ghammraoui Class time/details on ELMs	Seats (Total: 15) ONLINE

BIOE658R **Special Topics in Bioengineering (M.Eng.); Regulatory Affairs in Medical Product Development**

(Perm req)

Special topics in Bioengineering.

For Master of Engineering students only or with permission of department. Credit will only be granted for ANTH627 or BIOE658R. An introductory course on regulations associated with the development and production of medical devices and pharmaceuticals.

0101	Valerie Merkle TuTh 5:00pm - 6:15pm	Seats (Total: 15) AJC 2132
BI01	Valerie Merkle Class time/details on ELMs	Seats (Total: 15) ONLINE

BIOE689 **Special Topics in Bioengineering**

(Perm req)

Research Oriented Individual Instruction course.

Contact department for information to register for this course.

BIOE689B **Special Topics in Bioengineering; Engineered Living Materials**

(Perm req)

Research Oriented Individual Instruction course.

Restrictions: Permission of the Fischell Department of Bioengineering. Living materials possess unique features such as the ability to self-assemble, self-repair, and actively interact with their surroundings. Engineered living materials (ELMs) are inspired by naturally occurring living materials and use synthetic biology to introduce tailored non-natural properties, holding great potential to transform healthcare, agriculture, and even construction. This course will cover the major opportunities and challenges associated with designing and assembling ELMs.

0101	Sara Molinari TuTh 3:30pm - 4:45pm	Seats (Total: 15) CHE 2116

BIOE689E **Special Topics in Bioengineering; Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Research Oriented Individual Instruction course.

0101	Deborah Goldberg TuTh 9:30am - 10:45am	Seats (Total: 10) AJC 2119

BIOE689G **Special Topics in Bioengineering; Advanced Immunoengineering**

(Perm req)

Research Oriented Individual Instruction course.

Immunoengineering harnesses immunological functions to design treatments for various diseases including cancer. We will explore how engineering technologies have been used to study and modulate immune functions, techniques used in immunology and immune engineering, and new developments in the field. The course will largely focus on current literature in immune engineering topics.

0101	Katharina Maisel TuTh 3:30pm - 4:45pm	Seats (Total: 10) AJC 2132

BIOE689I **Special Topics in Bioengineering; Engineering Design for Global Health**

(Perm req)

Research Oriented Individual Instruction course.

Many medical technologies are not available in low and middle-income countries due to the cost, infrastructure, and medical expertise required to implement and sustain them. There is tremendous potential to increase access to health care through developing more affordable biomedical technologies, but effective design requires deep understanding of the problem. This course will introduce the human- centered design framework and how it can be applied to design new biomedical technologies to solve challenges in global health.

0101	Jenna Mueller TuTh 12:30pm - 1:45pm	Seats (Total: 14) AJC 2134

BIOE689J **Special Topics in Bioengineering; Therapeutic Development and Delivery**

(Perm req)

Research Oriented Individual Instruction course.

0101	Steven Jay TuTh 11:00am - 12:15pm	Seats (Total: 5) ESJ 1215

BIOE799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

BIOE898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

BIOE899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BIOI Bioinformatics and Computational Biology Fall 2023

BIOI601 **Probability and Statistics**

Prerequisite: Undergraduate courses in calculus and basic linear algebra. Cross-listed with: DATA601, MSML601. Credit only granted for: BIOI601, DATA601 or MSML601.

Provides a solid understanding of the fundamental concepts of probability theory and statistics. The course covers the basic probabilistic concepts such as probability space, random variables and vectors, expectation, covariance, correlation, probability distribution functions, etc. Important classes of discrete and continuous random variables, their inter-relation, and relevance to applications are discussed. Conditional probabilities, the Bayes formula, and properties of jointly distributed random variables are covered. Limit theorems, which investigate the behavior of a sum of a large number of random variables, are discussed. The main concepts random processes are then introduced. The latter part of the course concerns the basic problems of mathematical statistics, in particular, point and interval estimation and hypothesis testing.

PCS1	Leonid Koralov W 6:00pm - 8:45pm *Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.*	Seats (Total: 50) CSI 1122
PCS2	Sandra Cerrai W 6:00pm - 8:45pm *Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.*	Seats (Total: 40) CSI 1121
PCS3	Jonathan Fernandes W 6:00pm - 8:45pm *Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.*	Seats (Total: 40) CSI 3117

BIOI602 **Principles of Data Science**

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: DATA602, MSML602. Credit only granted for: BIOI602, DATA602, MSML602 or CMSC641. Formerly: CMSC641.

An introduction to the data science pipeline, i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of what data science means and systems and tools commonly used for data science, and illustrates the principles of data science through several case studies.

PCS1	Mohammad Hajiaghayi Tu 6:00pm - 8:45pm	Seats (Total: 70) IRB 0318
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	
PCS2	Mohammad Hajiaghayi Th 6:00pm - 8:45pm	Seats (Total: 70) IRB 0318
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

BIOI603 **Principles of Machine Learning**

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: DATA603, MSML603, MSQC603. Credit only granted for: BIOI603, DATA603, MSML603, MSQC603 or CMSC643. Formerly: CMSC643.

A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning: Bayes decision theory, discriminant functions, maximum likelihood estimation, nearest neighbor rule, linear discriminant analysis, support vector machines, neural networks, deep learning networks. Unsupervised learning: clustering, dimensionality reduction, PCA, auto-encoders. The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

PCS1	Babak Azimi-Sadjadi Th 6:00pm - 8:45pm	Seats (Total: 60) CSI 3117
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	
PCS2	Alejandra Mercado F 9:00am - 11:45am	Seats (Total: 50) CSI 1122
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	
PCS3	Babak Azimi-Sadjadi Sa 9:00am - 11:45am	Seats (Total: 40) EGR 1104
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

BIOl604 **Principles of Molecular Biology, Genetics and Genomics**

Provides a review of basic concepts in molecular biology, genetics, and genomics. Topics include the following: prokaryotic and eukaryotic genome structure and organization (including 3D architecture); Mendelian genetics, recombination, linkage and linkage disequilibrium, genome-wide association studies; review of genome projects, comparative genomics, genome variation, single nucleotide polymorphisms and genotyping; gene expression and the transcriptome, transcriptional regulation, gene regulatory networks; translation and translational regulation; proteomics approaches; integrative genomics.

PCS1	Volker Briken, Najib El-Sayed	Seats (Total: 10)
	M 6:00pm - 8:45pm	BRB 3101
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

BIOL Biology Fall 2023

BIOL608K **Biology Seminar; Biological Sciences Teaching and Learning in Higher Education**

(Perm req)

Cross-listed with CBMG699K, CHEM608K, and ENTM699K. Credit will be grant edfor only one of the following: BIOL608K, CBMG699K, CHEM608K, or ENTM699K.

0101	Gili Ad-Marbach	Seats (Total: 12)
	W 11:00am - 12:40pm	BPS 1208

BIOL609 **Special Problems in Biology**

One seminar per week for each subject selected: A-Cell Biology; B-Developmental Biology; C-Estuarine and Marine Biology; D-Genetics; E-Parasitology; F-Physiology; G-Systematics and Evolutionary Biology; I-Behavior; J-General; K-Endocrinology; L-Ecology.

Contact department for information to register for this course.

BIOL667 **Mathematical Biology**

Credit only granted for: BIOL667 or ZOOL625. Formerly: ZOOL625.

Mathematical methods of analyzing deterministic and stochastic biological processes from a variety of areas (including population and evolutionary biology, neurobiology, physiology, and morphogenesis). Qualitative aspects of dynamical systems which are usually given as difference or differential equations. The computer program Mathematica will be used to obtain the numerical solutions of these equations.

0101	Jonathan Simon	Seats (Total: 5)	
	TuTh 9:30am - 10:45am	CCC 1111	
	M 1:00pm - 3:50pm	CCC 1111	Lab

BIOL704 **Cell Biology from a Biophysical Perspective**

Recommended: BSCI330, PHYS121, and PHYS122. Cross-listed with: BIPH704. Jointly offered with: BSCI404. Credit only granted for: BSCI404, BIOL704, BIOL708O, or BIPH704. Formerly: BIOL708O.

An approach to cell biology by focusing on mechanisms and unifying paradigms. It will not assume a great deal of factual biological knowledge, but will expect a background that prepares students to think quantitatively and mechanistically.

0101	Sergei Sukharev TuTh 3:30pm - 4:45pm	Seats (Total: 9) PLS 1113	

BIOL708A **Advanced Topics in Biology; Evolution of Aging**

Lectures, experimental courses and other special instructions in various zoological subjects.

Credit only granted for BSCI339R and BIOL708A. Discuss alternative reasons for why animals age at different rates. Weekly meetings will be student-led discussions of classic and recent literature. Topics will include, but are not limited to, evolutionary theories of aging, biomarkers of aging, sex differences in aging, experimental manipulations that alter lifespan in model and nonmodel organisms, and the interactions between the immune system and aging.

0101	Gerald Wilkinson, Danielle Adams W 4:00pm - 4:50pm	Seats (Total: 6) BPS 1208	

BIOL708B **Advanced Topics in Biology; Animal Behavior**

Lectures, experimental courses and other special instructions in various zoological subjects.

Credit only granted for BSCI360 and BIOL708B. Study of animal behavior with emphasis on its evolution and function. Topics include genetic basis of behavior, communication, aggression, foraging, cooperation, mate selection, and relevance for conservation.

0101	Gerald Borgia MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 3) ONLINE PLS 1162	Discussion
0102	Gerald Borgia MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 1) ONLINE PLS 1162	Discussion

BIOL708M **Advanced Topics in Biology; Mammalian Physiology**

Lectures, experimental courses and other special instructions in various zoological subjects.

Credit only granted for BIOL708M, BSCI338L, BSCI440, or BSCI450. A study of the cardiovascular, hemopoietic, gastrointestinal, renal, and respiratory systems. Chemical and endocrine regulation of physiological functions in mammals.

0101	Joshua Singer	Seats (Total: 3)	
	MWF 12:00pm - 12:50pm	BPS 1250	

BIOL709C **Selected Advanced Topics in Biology; Population and Evolutionary Genetics**

Lectures, experimental courses and other special instructions in various biological subjects.

Credit only granted for BSCI339J, BSCI405, or BIOL709C. Genetic variation within a population provides the basis for future evolution as well as a record of past evolution. The genomics revolution provides data on this variation that, together with mathematical models, allow us to read this record to reconstruct evolutionary trajectories. Examples will focus on hominin and pathogen evolution. In the lab, students will use models to explore how genetic variation (allele frequencies) changes over time and space.

0101	Philip Johnson	Seats (Total: 4)	
	MW 10:00am - 10:50am	HBK 0123	
	F 10:00am - 11:50am	PLS 1121	Lab

BIOL709W **Selected Advanced Topics in Biology; Molecular Neuroethology**

Lectures, experimental courses and other special instructions in various biological subjects.

Credit only granted for BSCI339W, BSCI381, or BIOL709W. The brain generates a tremendous variety of behaviors, but how it achieves these feats remains largely unknown. Genetics and molecular tools yield fundamental insights into how the brain senses its environment and determines an appropriate course of action. This course will describe modern genetic manipulations (eg, CRISPR editing) and neuronal interventions (e. g., optogenetics), and discuss the quantification of behavioral outputs. Course consists of lectures plus readings and group discussionsof primary scientific literature.

0101	Scott Juntti	Seats (Total: 10)	
	TuTh 3:30pm - 4:45pm	BPS 0283	

BIOL721 **Mathematical Population Biology**

Prerequisite: Calculus, differential equations, modeling, linear algebra, familiarity with mathematical software and programming languages (e.g., MATLAB, R, Python etc.); or permission of instructor. Cross-listed with: AMSC721. Credit only granted for: AMSC721 or BIOL721. Additional information: Open to advanced undergraduates by permission of instructor.

Foundational principles for modeling and analysis of real-life phenomena in population biology. Topics include design and analysis of models for general classes of unstructured (single species discrete-time and continuous-time, interacting populations etc.) and structured (spatially-structured, age- structured, sex-structured) population biology models in ecology and epidemiology, dynamics analysis of population biology models (asymptotic stability and bifurcation theory), numerical discretization of continuous-time models, statistical analysis (parameter estimation, uncertainty quantification).

0101	Abba Gumel	Seats (Total: 20)	
	TuTh 9:30am - 10:45am	MTH 0104	

BIOL799 **Master's Thesis Research**
Contact department for information to register for this course.

BIOL898 **Pre-Candidacy Research**
Contact department for information to register for this course.

BIOL899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BIOM Biometrics Fall 2023

BIOM301 **Introduction to Biometrics**

Prerequisite: MATH113 or MATH115.

Descriptive statistics, introduction to probability, sampling, confidence interval estimation, hypothesis testing, simple regression and correlation. Emphasis on simple applications of statistical techniques and interpretation of statistical results.

0101	Christine Hakenkamp TuTh 2:00pm - 2:50pm M 1:00pm - 1:50pm	Seats (Total: 28) HJP 0226 ANS 0473	Discussion
0102	Christine Hakenkamp TuTh 2:00pm - 2:50pm M 2:00pm - 2:50pm	Seats (Total: 28) HJP 0226 ANS 0473	Discussion
0103	Christine Hakenkamp TuTh 2:00pm - 2:50pm M 3:00pm - 3:50pm	Seats (Total: 28) HJP 0226 ANS 0473	Discussion
0104	Christine Hakenkamp TuTh 2:00pm - 2:50pm Tu 9:30am - 10:20am	Seats (Total: 28) HJP 0226 ANS 0473	Discussion
0105	Christine Hakenkamp TuTh 2:00pm - 2:50pm Tu 11:00am - 11:50am	Seats (Total: 28) HJP 0226 ANS 0473	Discussion
0106	Christine Hakenkamp TuTh 2:00pm - 2:50pm Tu 12:30pm - 1:20pm	Seats (Total: 28) HJP 0226 ANS 0473	Discussion

0107	Christine Hakenkamp TuTh 2:00pm - 2:50pm M 10:00am - 10:50am	Seats (Total: 28) HJP 0226 ANS 0473	 Discussion

BIOM405 **Computer Applications in Biometrics**

(Perm req)

An introduction to computer applications for data analysis. This is equivalent to the computer lab of 601 and is required for students that have taken BIOM301 and BIOM402 and wish to go directly into BIOM602.

0101	Li Ma Class time/details on ELMs	Seats (Total: 5) ONLINE	

BIOM601 **Biostatistics I**

Prerequisite: BIOM301 or STAT464; or students who have taken courses with comparable content may contact the department. Credit only granted for: BIOM401 or BIOM601.

Estimation and hypothesis testing, t tests, one and two way analysis of variance, regression, analysis of frequency data. Lecture will emphasize uses and limitations of these methods in biology, while the laboratory will emphasize the use of statistical analysis software for the analysis of biological data.

0101	Li Ma TuTh 12:30pm - 1:45pm Tu 2:00pm - 4:00pm	Seats (Total: 25) CHE 2110 ANS 0473	 Lab
0102	Li Ma TuTh 12:30pm - 1:45pm W 9:00am - 11:00am	Seats (Total: 25) CHE 2110 ANS 0473	 Lab
0104	Li Ma TuTh 12:30pm - 1:45pm Th 2:00pm - 4:00pm	Seats (Total: 25) CHE 2110 ONLINE	 Lab

BIOM688A **Topics in Biometrics; Consulting Experience in Biometrics**

Advanced topics of current interest in various areas of biometrics. Credit assigned will depend on lecture and/or laboratory time scheduled and organization of the course.

Contact department for information to register for this course.

BIOM698 **Special Problems in Biometrics**

Individual study of a particular topic in biostatistics or biomathematics.

Contact department for information to register for this course.

BIPH698L **Biophysics Seminar; Biophysics**

0101	Arpita Upadhyaya	Seats (Total: 20)
	M 4:00pm - 5:30pm	IPT 1116

BIPH699 **Research in Biophysics**

Supervised research in biophysics laboratories. Rotations through several laboratories prior to a choice of laboratory for a research assistantship.

Contact department for information to register for this course.

BIPH704 **Cell Biology from a Biophysical Perspective**

Recommended: BSCI330, PHYS121, and PHYS122. Cross-listed with: BIOL704. Jointly offered with: BSCI404. Credit only granted for: BSCI404, BIOL704, BIOL708O, or BIPH704. Formerly: BIOL708O.

An approach to cell biology by focusing on mechanisms and unifying paradigms. It will not assume a great deal of factual biological knowledge, but will expect a background that prepares students to think quantitatively and mechanistically.

0101	Sergei Sukharev	Seats (Total: 9)
	TuTh 3:30pm - 4:45pm	PLS 1113

BIPH799 **Master's Thesis Research**
Contact department for information to register for this course.

BIPH898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

BIPH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BISI Biological Sciences Fall 2023

BISI620 **Bioinformatics and Genomics**

Credit only granted for: CBMG688Y or BISI620. Formerly: CBMG688Y.

Provides an overview of some major topics and research areas bioinformatics and genomics, and includes material from basic foundations through advanced concepts.

0101	Michael Cummings, Najib El-Sayed	Seats (Total: 24)
	Meets August 28, 2023 - October 17, 2023	
	TuTh 9:00am - 10:50am	BPS 1228

BISI699 **Special Problems in Biological Sciences**

(Perm req)

Independent study with a specific faculty instructor from the Biological Sciences Program (BISI). Often involves original research in a laboratory or computational setting.

Contact department for information to register for this course.

BISI701 **Teaching & Professional Development in Biology**

Cross-listed with: ENTM701. Credit only granted for: ENTM701, BISI688Z, CBMG688Z, or BIOL701. Formerly: BISI688Z, CBMG688Z, BIOL701. Additional information: Priority enrollment will be given to students in the BISI Graduate Program.

Provides graduate students in the biological sciences with the foundational knowledge to become better teaching assistants and gives them an introduction into the skills and tools that they need to develop as professional scientists and educators.

0101	Wade Winkler Tu 6:00pm - 8:00pm	Seats (Total: 20) ATL 2416
0201	Leslie Pick Tu 6:00pm - 8:00pm	Seats (Total: 20) PLS 4102

BISI712 **Responsible Conduct of Research for Biologists**

Credit only granted for: BISI712, BISI688B, or CBMG688B. Formerly: BISI688B and CBMG688B.

An exploration of the ethical dimensions associated with the responsible conduct of scientific research focusing on providing students with practical insights into the existing norms and expectations of working scientists.

0101	Gerald Wilkinson **Meets August 28, 2023 - October 17, 2023** Tu 4:00pm - 6:00pm	Seats (Total: 16) BRB 3101
0201	Zhongchi Liu **Meets October 19, 2023 - December 11, 2023** Tu 4:00pm - 6:00pm	Seats (Total: 16) BRB 3101
0301	Sergei Sukharev **Meets October 18, 2023 - December 11, 2023** W 4:00pm - 6:00pm	Seats (Total: 15) BRB 3101

BISI799 **Master's Thesis Research**
Contact department for information to register for this course.

BISI898 **Pre-Candidacy Research**

Restriction: Must be in Biological Sciences (Doctoral) program.

Contact department for information to register for this course.

BISI899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BMGT Business and Management Fall 2023

BMGT099 **Internship Seminar**

(Perm req)

Complements students' supervised work experiences. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

Contact department for information to register for this course.

BMGT110 **Introduction to the Business Value Chain**

Students are provided with an introduction to the business value chain with an emphasis on inter-organizational and intra-organizational coordination of core business processes. Emphasis is on cross-functional integration and the efficient and effective management of core processes with an emphasis on marketing, operations and supply chain management.

0101	Jeff Miller MW 2:00pm - 3:15pm	Seats (Total: 250) VMH 1524

BMGT110F **Introduction to the Business Value Chain**

Restricted to Smith School's Smith Start (FPFF) students.

FP01	Leland Gardner MW 8:00am - 9:15am	Seats (Total: 37) VMH 1307
FP02	Leland Gardner MW 9:30am - 10:45am	Seats (Total: 37) VMH 1307
FP03	Justin Reyna MW 12:30pm - 1:45pm	Seats (Total: 37) VMH 1418
FP04	Jeffrey Mund Th 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 37) VMH 1311 ONLINE

FP05	Jeffrey Mund Th 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 37) VMH 1311 ONLINE
FP06	Jeffrey Mund Tu 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 37) VMH 1311 ONLINE
FP07	Jeffrey Mund Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 37) VMH 1311 ONLINE
FP08	Jeffrey Mund Tu 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 37) VMH 1311 ONLINE
FP09	Jeffrey Mund Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 37) VMH 1311 ONLINE
FP10	Geoffrey Milsom MW 9:30am - 10:45am	Seats (Total: 37) VMH 1311

BMGT110L **Introduction to the Business Value Chain**

(Perm req)

Students are provided with an introduction to the business value chain with an emphasis on inter-organizational and intra-organizational coordination of core business processes. Emphasis is on cross-functional integration and the efficient and effective management of core processes with an emphasis on marketing, operations and supply chain management.

For Smith Business Leadership Fellows only.

FP02	Jon Crocker MW 11:00am - 12:15pm	Seats (Total: 25) VMH 1311
FP03	Jon Crocker MW 3:30pm - 4:45pm	Seats (Total: 25) VMH 1311

BMGT160 **The Intentional Self**

Credit only granted for: BMGT160, BMGT198A, or BMGT198B.

As you navigate adulthood, you will constantly be making decisions that impact your personal and professional well being and success. Making these life choices with intention and a perspective of your whole self will increase your life satisfaction. In this course, you will examine who have been, who you are, and who you want to become. We will be exploring the six pillars of the whole self including purpose/character, relationships, wellness, community, prosperity, and nature and creating a vision for your future self.

Click here for more information about the course.

0101	Sarah Wolek TuTh 11:00am - 12:15pm	Seats (Total: 40) TYD 0102
0201	Sarah Wolek TuTh 12:30pm - 1:45pm	Seats (Total: 40) TYD 2102

BMGT161 **Creative Problem Solving**

Examines the concept of creative problem solving as it applies in today's and tomorrow's complex business environment. Students will develop an understanding of the creative problem solving process with its distinctive cognitive steps of Divergent Thinking, Emergent Thinking and Convergent Thinking. Topics include creativity techniques for groups and individuals, creativity as a foundation to recognize business opportunities and develop innovative products and services, selecting ideas and making them stick, mental and organizational obstacles to creativity as well as an overview of electronic tools to increase creative capability.

Restriction: Must be enrolled in College Park Scholars' Business, Society and the Economy (CPBE) program.

0101	Oliver Schlake MW 9:30am - 10:45am	Seats (Total: 50) CCC 1205
0201	Oliver Schlake MW 11:00am - 12:15pm	Seats (Total: 50) CCC 1205

BMGT162 **The Future of You, Business and Society**

(Perm req)

Designed to help you (students) explore the future of you, business, and society. Even as the nature of business (the how) evolves with technology, the purpose of business --to create individual and social prosperity (the why) --remains the same. This course will integrate the "why" and the "how" to prepare students for the future of work. Students will learn the foundational concepts of how to lead themselves with purpose and develop win-win relationships. Students will also learn how organizations solve unmet needs in society, and how they develop and leverage the power of technology and new business practices to create value in a sound and ethical way.

FP01	Rajshree Agarwal TuTh 5:30pm - 6:50pm	Seats (Total: 38) VMH 1212	
FP02	Christine Schaaf TuTh 5:30pm - 6:50pm	Seats (Total: 38) VMH 1212	

BMGT190H **Introduction to Design and Quality**

Restriction: Must be in the Quest program. Cross-listed with: ENES190. Credit only granted for: BMGT190 or ENES190.

QUEST students learn and apply design practices to design new products and services. Working in multidisciplinary teams, students use quality and process improvement methods to identify, analyze, and recommend solutions to real-world problems.

Restricted to Quest Program students.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): Click here for more information on the Fearless Ideas Courses.

0101	Benjamin Huffman, Joshua Cocker TuTh 12:30pm - 1:45pm Tu 6:00pm - 7:50pm	Seats (Total: 45) TWS 1310 ESJ 1215	 Discussion

BMGT207 **Technology, Society and the Future of Humanity**

New emerging and converging technologies (such as blockchain, AI, and synthetic biology) are disrupting business-as-usual in fields as diverse as finance, supply chain, medicine and the creative industries. This course deals with the question of how we should use technology to create ethical economic and social systems that reflect the kind of world we want to exist in 25, 50, 100 years from now. Our ideas of what humanity considers to be a "good life" will influence and govern how disruptive technologies can either contribute to it or lead to a dystrophic future.

0101	Anand Anandalingam W 6:30pm - 9:10pm	Seats (Total: 60) VMH 1505	

BMGT210 **Foundations of Accounting for Non Business Majors**

Restriction: Must not have completed BMGT221; and must not be in a major in the R.H. Smith School of Business. Credit only granted for: (BMGT220 and BMGT221) or BMGT210. Additional information: Does not apply to a Smith School degree. Students pursuing a Smith School minor who have completed both BMGT220 and BMGT221 may substitute these courses for BMGT210. Credit will not be given for both BMGT210 and the combination of BMGT220 and BMGT221.

Provides an understanding of the common statements that report a company's profitability and financial health, and are useful to all economic agents who are engaged with the firm. Students will also recognize and understand managerial accounting as a system for accumulating and modeling information to support decision-making.

Open to all non-BMGT majors.

0101	Darlene Dennison Class time/details on ELMs	Seats (Total: 180) ONLINE	

BMGT220 **Principles of Accounting I**

Basic theory and techniques of contemporary financial accounting. Includes the accounting cycle and the preparation of financial statements for single owner and partnership forms of business organizations operating as service companies or merchandisers.

Restricted to all students with 24 credit hours completed.

0101	Progyan Basu TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1335	 Discussion
0102	Progyan Basu TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1335	 Discussion
0103	Progyan Basu TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1335	 Discussion
0104	Progyan Basu TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1335	 Discussion
0201	Progyan Basu TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1307	 Discussion
0202	Progyan Basu TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1307	 Discussion
0203	Progyan Basu TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1307	 Discussion
0204	Progyan Basu TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1307	 Discussion

0301	Progyan Basu TuTh 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1336	Discussion
0302	Progyan Basu TuTh 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1336	Discussion
0303	Progyan Basu TuTh 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1336	Discussion
0304	Progyan Basu TuTh 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 35) VMH 1524 VMH 1336	Discussion

BMGT221 **Principles of Accounting II**

Prerequisite: BMGT220.

Basic theory and techniques of accounting for managerial decision making. Involves the introduction of the corporation and manufacturing operations. Includes cost-volume-profit analysis and capital budgeting. Introduces the topics of income taxation and international accounting.

Restricted to students with 24 credit hours completed.

0101	Michael McMillan TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 44) VMH 1524 VMH 1202	Discussion
0102	Michael McMillan TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 44) VMH 1524 VMH 1202	Discussion
0103	Michael McMillan TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 44) VMH 1524 VMH 1202	Discussion
0104	Michael McMillan TuTh 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 44) VMH 1524 VMH 1202	Discussion

0201	Michael McMillan TuTh 3:30pm - 4:45pm F 11:00am - 11:50am	Seats (Total: 44) VMH 1524 VMH 1206	 Discussion
0202	Michael McMillan TuTh 3:30pm - 4:45pm F 12:00pm - 12:50pm	Seats (Total: 44) VMH 1524 VMH 1206	 Discussion
0203	Michael McMillan TuTh 3:30pm - 4:45pm F 1:00pm - 1:50pm	Seats (Total: 44) VMH 1524 VMH 1206	 Discussion
0204	Michael McMillan TuTh 3:30pm - 4:45pm F 2:00pm - 2:50pm	Seats (Total: 44) VMH 1524 VMH 1206	 Discussion

BMGT221L **Principles of Accounting II**

Prerequisite: BMGT220.

Basic theory and techniques of accounting for managerial decision making. Involves the introduction of the corporation and manufacturing operations. Includes cost-volume-profit analysis and capital budgeting. Introduces the topics of income taxation and international accounting.

Restricted to students in the Smith Business Leadership Fellows program.

0101	Mark Zakota MW 11:00am - 12:15pm	Seats (Total: 35) VMH 2511
0201	Mark Zakota MW 12:30pm - 1:45pm	Seats (Total: 35) VMH 2511

BMGT230 **Business Statistics**

Prerequisite: MATH113 or MATH115; or must have math eligibility of MATH120 or higher. Restriction: Must not have completed ENCE302, ENME392, STAT400, BMGT231, or ENEE324.

Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and management.

Where a BMGT exam conflicts with a regularly scheduled class, the student will be provided with a makeup exam.

0101	Erich Studer-Ellis MW 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1311	Discussion
0102	Erich Studer-Ellis MW 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 24) VMH 1524 VMH 1311	Discussion
0103	Erich Studer-Ellis MW 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1311	Discussion
0104	Erich Studer-Ellis MW 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 28) VMH 1524 VMH 1311	Discussion
0105	Erich Studer-Ellis MW 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 32) VMH 1524 VMH 1311	Discussion
0106	Erich Studer-Ellis MW 9:30am - 10:45am F 2:00pm - 2:50pm	Seats (Total: 35) VMH 1524 VMH 1311	Discussion
0201	Erich Studer-Ellis MW 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1418	Discussion
0202	Erich Studer-Ellis MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1418	Discussion
0203	Erich Studer-Ellis MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 20) VMH 1524 VMH 1418	Discussion
0204	Erich Studer-Ellis MW 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1418	Discussion

0205	Erich Studer-Ellis MW 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 31) VMH 1524 VMH 1418	 Discussion
0206	Erich Studer-Ellis MW 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 32) VMH 1524 VMH 1418	 Discussion
0301	Erich Studer-Ellis MW 12:30pm - 1:45pm F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1303	 Discussion
0302	Erich Studer-Ellis MW 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 27) VMH 1524 VMH 1303	 Discussion
0303	Erich Studer-Ellis MW 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 20) VMH 1524 VMH 1303	 Discussion
0304	Erich Studer-Ellis MW 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1303	 Discussion
0305	Erich Studer-Ellis MW 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1303	 Discussion
0306	Erich Studer-Ellis MW 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 35) VMH 1524 VMH 1303	 Discussion
FC01	Radu Lazar MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) HBK 1108	

BMGT230B Business Statistics

Prerequisite: MATH113 or MATH115; or must have math eligibility of MATH120 or higher. Restriction: Must not have completed ENCE302, ENME392, STAT400, BMGT231, or ENEE324.

Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and management.

Restricted to BMGT majors. Where a BMGT exam conflicts with a regularly scheduled class, the student will be provided with a makeup exam.

0102	Erich Studer-Ellis MW 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 11) VMH 1524 VMH 1311	Discussion
0104	Erich Studer-Ellis MW 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 7) VMH 1524 VMH 1311	Discussion
0105	Erich Studer-Ellis MW 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 3) VMH 1524 VMH 1311	Discussion
0203	Erich Studer-Ellis MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 15) VMH 1524 VMH 1418	Discussion
0205	Erich Studer-Ellis MW 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 4) VMH 1524 VMH 1418	Discussion
0206	Erich Studer-Ellis MW 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 3) VMH 1524 VMH 1418	Discussion
0302	Erich Studer-Ellis MW 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 8) VMH 1524 VMH 1303	Discussion
0303	Erich Studer-Ellis MW 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 15) VMH 1524 VMH 1303	Discussion

BMGT289A Social Enterprise: Changing the World through Innovation and Transformative Action

In this course, students will hear from real-life social entrepreneurs, explore current day social issues of sustainability, climate change, leadership, disruptive innovations, and create or blueprint business plans to generate positive social change. This class will focus on innovative thinking skills, personal narratives, and social interaction strategies and plans.

0101	Jun Han MW 3:30pm - 4:45pm	Seats (Total: 60) SKN 0104

BMGT289D **Frauds, Scams, and Thefts: What, How and Why?**

"Why" does fraud happen? "How" does society address fraud? And "What" can you do to avoid and prevent fraud in your personal and future career life? This course is designed to give future professionals and managers of all disciplines a general background of fraud. Topics include the psychology of fraud, the mechanics of fraud, the legal landscape, securities fraud, cybercrime, and what all of us should know to protect ourselves from becoming victims of fraud. Additionally, students experience 21st century lessons in fraud examination that have practical application to our daily lives: avoiding cognitive biases, interviewing techniques, basic business controls, and opening our minds to see what others might miss...the red flags of fraud.

0101	Samuel Handwerger MW 3:30pm - 4:45pm	Seats (Total: 60) ESJ 0215
0201	Samuel Handwerger MW 5:00pm - 6:15pm	Seats (Total: 60) ESJ 0215

BMGT289E **Entrepreneurial Thinking for Non-Business Majors: How Not to Miss Great Opportunities Your Life Throws at You**

In this course, students learn how to analyze the world around them and then notice and define new trends, emerging problems, impending gaps, and how to turn these into exciting opportunities by providing creative solutions. Students will have a chance to not only sharpen their critical thinking skills, but also learn how to take initiative, develop a working solution, identify and resolve conflicts, and be confident and persistent, yet flexible enough to respond to changes. Student teams identify a compelling problem in present day life and then propose a creative solution taking into account possible difficulties in implementation. In addition, students will also be given problems on a much smaller scale and asked to create and present a workable solution. Students will be exposed to how a visionary's mind works and the creative solution process. In addition, students will also learn how entrepreneurial thinking can improve their day-to-day life.

0101	Oliver Schlake MW 2:00pm - 3:15pm	Seats (Total: 60) ESJ 1215
0201	Oliver Schlake MW 3:30pm - 4:45pm	Seats (Total: 60) ESJ 1215

BMGT289I **Why Good Managers Make Bad Decisions**

This course provides an overview of the concepts, approaches, and vocabulary of evidence-based management (EBM) and provides an understanding of how experts in many disciplines can employ evidenced based decision making. EBM is an emerging movement in business to explicitly use the current best information in management decision making with special emphasis on relevant scientific findings and unbiased organizational facts. The course stresses how individuals practicing EBM learn how to rethink their approaches to data and knowledge in order to make more effective decisions.

Why do smart managers make flawed decisions? Why do managers keep believing they have made the right choice, even with disastrous results staring them in the face? Why Good Managers Make Bad Decisions will address how evidence-based management and other decisionmaking tools can be used to uncover hidden assumptions in the corner offices of great corporations.

0101	Jeff Miller MW 3:30pm - 4:45pm	Seats (Total: 240) VMH 1524
FC01	Jeff Miller TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 34) SQH 2120

BMGT298E **Special Topics in Business and Management; Challenge Your Thinking, Challenge the Conversation**

Introductory special topics in business and management.

0101	Protiti Dastidar MW 2:00pm - 3:15pm	Seats (Total: 40) TMH 0225

BMGT298J **Special Topics in Business and Management; Personal Financial Success During College**

Introductory special topics in business and management.

0101	Michael McMillan Class time/details on ELMs	Seats (Total: 50) ONLINE

BMGT298K **Special Topics in Business and Management; Personal Financial Success After College**

Introductory special topics in business and management.

0101	Michael McMillan Class time/details on ELMs	Seats (Total: 50) ONLINE

BMGT301 **Introduction to Information Systems**

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Additional information: CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major. All BMGT majors, including students who are a double major in CMSC, must complete BMGT301 for their BMGT degree.

Comprehensive overview of information systems (IS), which explores the strategic and tactical nature of IS. The basic concepts in analyzing and designing information systems for business applications will be presented. Aspects of data management such as databases, data warehousing, data analysis, and data mining will be analyzed, and the basics of web page and web site design will be outlined. Students will also be introduced to modern information systems infrastructure such as telecommunications, networks, and information systems security. Knowledge of Excel or a similar spreadsheet tool.

Restricted to Information Systems majors with 45 credits completed and other BMGT majors with 53 credits completed.

0101	Zeinab Karake MW 12:30pm - 1:45pm	Seats (Total: 65) VMH 1412
0201	Zeinab Karake MW 3:30pm - 4:45pm	Seats (Total: 65) VMH 1505
0301	Paul Shapiro MW 5:00pm - 6:15pm	Seats (Total: 65) VMH 1505
0401	Bharti Motwani TuTh 12:30pm - 1:45pm	Seats (Total: 65) VMH 1212
0501	Bharti Motwani TuTh 3:30pm - 4:45pm	Seats (Total: 60) VMH 1303
0601	Bharti Motwani TuTh 5:00pm - 6:15pm	Seats (Total: 65) VMH 1412
0701	Bharti Motwani TuTh 11:00am - 12:15pm	Seats (Total: 65) VMH 1212

BMGT301F **Introduction to Information Systems**

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Additional information: CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major. All BMGT majors, including students who are a double major in CMSC, must complete BMGT301 for their BMGT degree.

Comprehensive overview of information systems (IS), which explores the strategic and tactical nature of IS. The basic concepts in analyzing and designing information systems for business applications will be presented. Aspects of data management such as databases, data warehousing, data analysis, and data mining will be analyzed, and the basics of web page and web site design will be outlined. Students will also be introduced to modern information systems infrastructure such as telecommunications, networks, and information systems security. Knowledge of Excel or a similar spreadsheet tool.

Restricted to second year students in the Smith School's Smith Start program (FPFF).

FP01	Zeinab Karake MW 9:30am - 10:45am	Seats (Total: 65) VMH 1412
FP02	Zeinab Karake MW 11:00am - 12:15pm	Seats (Total: 65) VMH 1412

BMGT302 **Essential Programming Skills for Business Analytics**

Prerequisite: BMGT301; or permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business; and must not be in the Computer Science major.

The course introduces structured and object-oriented programming and its applications in business functions and analytics. Students will apply problem-solving skills to create software solutions using programming logic and data structures. The course especially emphasizes learning by doing exercises using a modern, high-level programming language and industry standard software.

Restricted to Information Systems majors with 45 credits completed and other BMGT majors and Business Analytics minors with 53 credits completed. Not open to Computer Science.

0101	John Bono TuTh 3:30pm - 4:45pm	Seats (Total: 35) VMH 2203
0201	John Bono TuTh 9:30am - 10:45am	Seats (Total: 35) VMH 2203
0301	John Bono TuTh 12:30pm - 1:45pm	Seats (Total: 35) VMH 2203
0401	Woei-jyh Lee MW 8:00am - 9:15am	Seats (Total: 35) VMH 2203

BMGT302F **Essential Programming Skills for Business Analytics**

Prerequisite: BMGT301; or permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business; and must not be in the Computer Science major.

The course introduces structured and object-oriented programming and its applications in business functions and analytics. Students will apply problem-solving skills to create software solutions using programming logic and data structures. The course especially emphasizes learning by doing exercises using a modern, high-level programming language and industry standard software.

Restricted to students in the Smith School's iTBT Fellows program.

FP01	Peng Huang TuTh 11:00am - 12:15pm	Seats (Total: 25) VMH 2203

BMGT310 **Intermediate Accounting I**

Prerequisite: BMGT221.

Comprehensive analysis of financial accounting topics related to financial statement preparation and external reporting.

0101	Emanuel Zur TuTh 11:00am - 12:15pm *Restricted to Accounting and Finance majors with 53 credit hours completed.*	Seats (Total: 38) VMH 1518
0201	Emanuel Zur TuTh 9:30am - 10:45am *Restricted to Accounting and Finance majors with 53 credit hours completed.*	Seats (Total: 38) VMH 1518
0301	Sean Cao MW 12:30pm - 1:45pm *Restricted to Accounting and Finance majors with 53 credit hours completed.*	Seats (Total: 38) VMH 1314
0401	Sean Cao MW 11:00am - 12:15pm *Restricted to Accounting and Finance majors with 53 credit hours completed.*	Seats (Total: 38) VMH 1314
ESG1	Lu Zhang TuTh 9:30am - 10:45am *Restricted to BMGT-Shady Grove Juniors majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 2062

BMGT311 **Intermediate Accounting II**

Prerequisite: BMGT310.

Continuation of BMGT310.

Restricted to Accounting majors with 60 credit hours completed.

0101	Patrick McNamee TuTh 2:00pm - 3:15pm	Seats (Total: 35) VMH 1314

0201	Patrick McNamee TuTh 3:30pm - 4:45pm	Seats (Total: 20) VMH 3330H

BMGT313 **Financial Statement Analysis**

Prerequisite: BMGT221.

Provides students with the tools to conduct a financial statement analysis, which is part of an overall business analysis. Involves understanding and using the information that financial statements are communicating to users.

Restricted to Accounting and Finance majors with 53 credits completed.

0101	Brent Solomon TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1206
0201	Brent Solomon TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1206
0301	Brent Solomon TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1307

BMGT321 **Managerial Accounting**

Prerequisite: BMGT221.

A study of the basic concepts of product costing and cost analysis for management planning and control. Emphasis is placed on the role of the accountant in organizational management, analysis of cost behavior, standard cost budgeting, responsibility accounting and relevant costs for decision-making.

0101	Lu Zhang MW 11:00am - 12:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 42) VMH 1202
0201	Martin Loeb TuTh 3:30pm - 4:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 38) VMH 1314
ESG1	Lu Zhang TuTh 12:30pm - 1:45pm *Restricted to BMGT-Shady Grove Seniors majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 30) BLD2 2062

BMGT323 **Taxation of Individuals**

Prerequisite: BMGT221.

Federal taxation of individuals focusing on income, exclusions, deductions, depreciation, credits and capital transactions. Property coverage includes the tax consequences of sales and dispositions of investment and business assets. Both tax planning and compliance issues are covered.

Restricted to Accounting majors with 53 credit hours completed.

0101	Jeffrey Milton MW 3:30pm - 4:45pm	Seats (Total: 35) VMH 1314
0201	Jeffrey Milton TuTh 3:30pm - 4:45pm	Seats (Total: 35) VMH 2505

BMGT326 **Accounting Systems**

Prerequisite: BMGT221; and (BMGT201 or BMGT301).

A study of accounting systems and computer and communications technology.

Restricted to Accounting majors with 60 credit hours completed.

0101	James McKinney MW 2:00pm - 3:15pm	Seats (Total: 30) VMH 1518
0201	Lei Zhou MW 9:30am - 10:45am	Seats (Total: 30) VMH 1518

BMGT332 **Quantitative Models for Management Decisions**

Prerequisite: BMGT231 or BMGT230; or students who have taken courses with comparable content may contact the department.

The aim of this course is to introduce management science techniques for informed decision-making that can be applied in spreadsheet models to assist in the decision-analysis process. Models include Linear Programming, Transportation and Assignment problems, network flow models, Integer and non-linear programming, Simulation and Decision Trees.

Restricted to BMGT majors and Business Analytics minors with 53 credit hours completed.

0101	Kazim Ruhi TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1202
0201	Maria Bardossy TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1415

0301	Kazim Ruhi TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1202
0401	Kazim Ruhi TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1202

BMGT340 Business Finance

Prerequisite: BMGT220; and (BMGT231 or BMGT230).

Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

0101	Michael Padhi MW 9:30am - 10:45am *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 68) VMH 1212
0201	Michael Padhi MW 11:00am - 12:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 68) VMH 1212
0301	Terrence O'Brien MW 2:00pm - 3:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 67) VMH 1212
0401	Michael Padhi TuTh 9:30am - 10:45am *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 68) VMH 1528
0501	Michael Padhi TuTh 11:00am - 12:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 68) VMH 1528
0601	Michael Padhi TuTh 12:30pm - 1:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 68) VMH 1528
0701	Terrence O'Brien MW 3:30pm - 4:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 68) VMH 1212

0801	Terrence O'Brien MW 12:30pm - 1:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 68) VMH 1212
ESG1	James Seward TuTh 11:00am - 12:15pm *Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 60) BLD2 3032
ESG2	James Seward TuTh 12:30pm - 1:45pm *Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 60) BLD2 3032

BMGT340F **Business Finance**

Prerequisite: BMGT220; and (BMGT231 or BMGT230).

Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

Restricted to students in the Smith School's Sophomore Finance Fellows Program.

FP01	Seokwoo Lee MW 2:00pm - 3:15pm	Seats (Total: 35) VMH 1311

BMGT340N **Business Finance**

Prerequisite: BMGT220; and (BMGT231 or BMGT230).

Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

Restricted to agricultural and resource economics majors (0111C) with 53 credit hours completed.

0301	Terrence O'Brien MW 2:00pm - 3:15pm	Seats (Total: 1) VMH 1212

BMGT341 **Financial Markets**

Prerequisite: Must have completed or be concurrently enrolled in BMGT340.

Shows the interconnectedness of the markets. The role of the Central bank and monetary policy is included in this context. Students develop an understanding of: (i) the determination of interest rates; (ii) financial instruments, markets and institutions; (iii) the impact of monetary policy on institutions; and (iv) how financial innovations create markets.

Restricted to Finance majors with 60 credit hours completed.

0101	Julie Pavlovsky TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1418
0201	Julie Pavlovsky TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1418
0301	Julie Pavlovsky TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1418

BMGT342F **Wall Street Finance**

(Perm req)

Prerequisite: BMGT340.

Using concepts and tools of finance, students will examine a wide range of business problems and explore possible solutions. The course is designed to improve a student's problem solving capabilities, business writing and communication skills, teamwork, and planning skills. Students will also gain experience in analyzing issues frequently faced by financial decision-makers.

Restricted to students in the Smith School's Wall Street Fellows Program.

FP01	Julie Pavlovsky TuTh 3:30pm - 4:45pm	Seats (Total: 35) VMH 1418

BMGT343 **Investments**

Prerequisite: BMGT340. Credit only granted for: BMGT343 or ECON435. Additional information: This course cannot be used to fulfill any requirements for majors in Economics.

An introduction to financial investments. Topics include: securities and securities markets; investment risks, returns and constraints; portfolio policies; and institutional investment policies.

Restricted to Finance majors with 60 credit hours completed.

0101	Yueyang Han MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1206

0201	Kenneth Fuller TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1307
0301	Kenneth Fuller TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1307
0401	Yueyang Han MW 11:00am - 12:15pm	Seats (Total: 45) VMH 1206
0501	Yueyang Han M 5:00pm - 7:40pm	Seats (Total: 45) VMH 1335

BMGT345 **Foundations of Financial Management for Non Business Majors**

Prerequisite: BMGT210 or BMGT220. Restriction: Must not have completed BMGT340; and must not be a major in the R.H. Smith School of Business. Credit only granted for: BMGT345 or BMGT340. Additional information: Course does not apply to a Smith School degree. BMGT340 may substitute for BMGT345.

Provides students an overview of financial management. Students will understand how a business allocates financial resources in an uncertain environment to maximize shareholder value. In addition students will learn the following: how to apply accounting principles to corporate finance; how to value assets, projects, companies and investment securities; understand the relationship between risk and return and how it impacts investment and corporate decisions; how to calculate a company's cost of capital, and develop an intuitive comprehension of financial concepts and analysis.

Open to all non-BMGT majors.

0101	Michael Padhi Class time/details on ELMs	Seats (Total: 180) ONLINE

BMGT350 **Marketing Principles and Organization**

Recommended: ECON200.

An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

0101	Richard Toohey M 9:30am - 10:45am Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1505 ONLINE

0201	Richard Toohey M 11:00am - 12:15pm Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1505 ONLINE
0301	Idil Yaveroglu M 12:30pm - 1:45pm Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1505 ONLINE
0401	Roxanne Lefkoff W 9:30am - 10:45am Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 62) VMH 1505 ONLINE
0501	Roxanne Lefkoff W 11:00am - 12:15pm Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1505 ONLINE
0601	Elie Ashery W 12:30pm - 1:45pm Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1505 ONLINE
0701	Elie Ashery W 2:00pm - 3:15pm Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1505 ONLINE
ESG1	Henry Boyd MW 9:30am - 10:45am *Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 54) BLD4 5332

ESG2	Henry Boyd MW 11:00am - 12:15pm	Seats (Total: 54) BLD4 5332
	Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT350N **Marketing Principles and Organization**

Recommended: ECON200.

An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

Restricted to agricultural and resource economics (0111C) and horticulture (0107C) majors with 53 credit hours completed.

0401	Roxanne Lefkoff W 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 3) VMH 1505 ONLINE

BMGT351 **Marketing Research Methods**

Prerequisite: BMGT230; and must have completed or be concurrently enrolled in BMGT350. Credit only granted for: BMGT351 or BMGT452. Formerly: BMGT452.

Focuses on aiding marketing decision-making through exploratory, descriptive and causal research. Develops student skills in designing market research studies, including selection of data collection method, development of data collection instrument, sample design, collection and statistical analysis of data and reporting the results, including data visualization.

Restricted to Marketing majors with 53 credit hours completed

0101	Bo Zhou TuTh 2:00pm - 3:15pm	Seats (Total: 40) VMH 1311
	Restricted to Marketing majors with 53 credit hours completed.	
0201	Andy Li TuTh 3:30pm - 4:45pm	Seats (Total: 40) VMH 1311
	Restricted to Marketing majors with 53 credit hours completed.	
0301	Zipei Lu TuTh 9:30am - 10:45am	Seats (Total: 40) ARC 1105
	Restricted to Marketing majors with 53 credit hours completed.	

0401	Jason Choi TuTh 12:30pm - 1:45pm	Seats (Total: 40) VMH 1336
	Restricted to Marketing majors with 53 credit hours completed.	
0501	Jason Choi TuTh 9:30am - 10:45am	Seats (Total: 40) VMH 1314
	Restricted to Marketing majors with 53 credit hours completed.	
ESG1	Yi Chen TuTh 11:00am - 12:15pm	Seats (Total: 40) BLD3 2230
	Restricted to BMGT-Shady Grove Seniors majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT354 Consumer Analysis

Prerequisite: BMGT350. Credit only granted for: BMGT354 or BMGT451. Formerly: BMGT451.

Identifying buyer behavior concepts relevant to a specific marketing problem so that appropriate marketing decisions can be made. Conceptual frameworks are drawn from psychology, sociology, economics, and other social sciences to aid in understanding the behavior of ultimate and industrial buyers.

Restricted to Marketing majors with 68 credit hours completed.

0101	Rebecca Ratner MW 12:30pm - 1:45pm	Seats (Total: 40) VMH 1415
0201	Rebecca Ratner MW 2:00pm - 3:15pm	Seats (Total: 40) VMH 1415
0301	Rebecca Ratner MW 11:00am - 12:15pm	Seats (Total: 40) VMH 1415

BMGT355 Foundations of Marketing for Non Business Majors

Restriction: Must not have completed BMGT350; and must not be a major in the R.H. Smith School of Business. Credit only granted for: BMGT355 or BMGT350. Additional information: Course does not apply to a Smith School degree. BMGT350 may substitute for BMGT355.

Introduces the concepts and principles of marketing. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

Open to all non-BMGT majors.

0101	Idil Yaveroglu	Seats (Total: 180)
	Class time/details on ELMs	ONLINE

BMGT360 **Strategic Management of Human Capital**

Provides students with the basic knowledge needed to help organizations attract, select, develop, engage, evaluate, and retain talent. Topics covered may include strategic HRM, the role of globalization, legal issues in HRM, work analysis, HR planning, recruitment, personnel selection, performance management and appraisal, training and development, career development, compensation systems, motivating and rewarding performance, labor relations, and employee health and safety.

Restricted to all students with 53 credit hours completed.

0101	Gregory Marr	Seats (Total: 60)
	MW 2:00pm - 3:15pm	VMH 1303
0201	Gregory Marr	Seats (Total: 60)
	MW 3:30pm - 4:45pm	VMH 1303

BMGT362 **Negotiations**

Restriction: Must not have completed COMM425. Credit only granted for: BMGT362 or COMM425.

By using a variety of assessment tools, feedback sources, skill-building exercises, and exercise debriefings, this experiential course is designed to enhance students' negotiating self-confidence and improve students' analytical skills, interpersonal skills, creativity and persuasive abilities.

0101	Gosia Langa Basit	Seats (Total: 45)
	TuTh 2:00pm - 3:15pm	VMH 1303
	Restricted to Management majors (0503G) and I&E minors (#BU03) with 53 credits.	
0201	Gosia Langa Basit	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	VMH 1303
	Restricted to Management majors (0503G) and I&E minors (#BU03) with 53 credits.	
ESG1	Robert Sheehan	Seats (Total: 45)
	TuTh 11:00am - 12:15pm	BLD2 2062
	Restricted to Senior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT363 **Leadership and Teamwork in Organizations**

Provides a comprehensive understanding of fundamental leadership concepts, theories, and skills in organizations and applies to assessing and developing effective leadership practices in organizations.

Course restricted to Management majors (0503G & 0503E) with 53 credits.

0101	Sheetal Singh TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1418
0201	Sheetal Singh TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1336

BMGT364 **Managing People and Organizations**

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

0101	Gregory Marr MW 12:30pm - 1:45pm *Restricted to BMGT majors with 53 credit hours completed. This blended section will contain a combination of synchronous in-person work and asynchronous online work.*	Seats (Total: 55) VMH 1303
0201	Gregory Marr MW 9:30am - 10:45am *Restricted to BMGT majors with 53 credit hours completed. This blended section will contain a combination of synchronous in-person work and asynchronous online work.*	Seats (Total: 60) VMH 1303
0301	Yasha Spriha MW 5:00pm - 6:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 60) VMH 1303
0401	Roy Thomason TuTh 9:30am - 10:45am *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 60) VMH 1212
0501	Roy Thomason TuTh 11:00am - 12:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 60) VMH 1412
0601	Gosia Langa Basit TuTh 3:30pm - 4:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 60) VMH 1212

0701	Amber Johnson M 7:00pm - 9:40pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 60) VMH 1303
ESG1	Robert Sheehan MW 11:00am - 12:15pm *Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 60) BLD3 2230
ESG2	Robert Sheehan MW 12:30pm - 1:45pm *Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 60) BLD3 2230

BMGT364N **Managing People and Organizations**

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

Restricted to agricultural and resource economics (0111C) and dietetics (1307D) majors with 53 credit hours completed.

0101	Gregory Marr MW 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 5) VMH 1303 ONLINE

BMGT365 **Entrepreneurial Finance and Private Equity**

Prerequisite: BMGT461 or BMGT361. Restriction: Junior standing or higher. Credit only granted for: BMGT365, ENES466, SMLP471 or HLMN471.

Studies venture capital and private equity using a combination of cases, lectures and guest speakers. Addresses how venture capitalists provide capital to start-up firms in growing industries and how private equity markets provide capital to help established medium-sized firms (often family businesses) grow and restructure. Focuses on how financial, legal, and economic issues are dealt with in the financial contracts between venture capitalists and their limited partners and between capitalists (or other private equity investors) and the firms in which they invest.

Restricted to BMGT majors with 72 credit hours completed and Innovation and Entrepreneurship (#BU03) minors.

0101	Alan Jacobs W 5:00pm - 7:40pm	Seats (Total: 40) VMH 1311

BMGT366 **Growth Strategies for Emerging Companies**

Prerequisite: BMGT461 or BMGT361. Restriction: Junior standing or higher.

Offers practical management tools that are needed to build a new venture into a significant enterprise. The competencies, strategies and structures of successful high performance businesses are studied through cases, videos and guest lecturers. Topics include leadership, internal growth strategies, merger, acquisition and franchising.

Restricted to Innovation and Entrepreneurship (#BU03) minors and Management (0503G) majors.

0101	David Kirsch TuTh 9:30am - 10:45am	Seats (Total: 45) SQH 1117
ESG1	Steven Freishtat TuTh 12:30pm - 1:45pm *Restricted to Senior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD3 2230

BMGT367 **Career Search Strategies in Business**

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

An overview and opportunity to practice job search skills critical to obtaining internships and full-time positions. Course will cover strategies for exploring career options, preparing job search materials, development of job search skills such as interviewing and networking. Students are encouraged to take this course in the sophomore or junior year.

0101	Tyrone Clifton, Erin Saddler M 5:00pm - 5:50pm *Restricted to BMGT students with 45 credit hours completed.*	Seats (Total: 55) VMH 1212
0201	Rahman Anjorin, Erin Saddler Tu 5:00pm - 5:50pm *Restricted to BMGT students with 45 credit hours completed.*	Seats (Total: 55) VMH 1303
0301	Erin Saddler, Susan Powell W 5:00pm - 5:50pm *Restricted to BMGT students with 45 credit hours completed.*	Seats (Total: 55) VMH 1212

0401	Erin Saddler, Tyrone Clifton M 6:00pm - 6:50pm *Restricted to BMGT students with 45 credit hours completed.*	Seats (Total: 54) VMH 1212
0501	Erin Saddler, Erica McNaughton W 5:00pm - 5:50pm *Restricted to BMGT students with 45 credit hours completed.*	Seats (Total: 54) VMH 1202
0601	Adam VanWagner, Erin Saddler Tu 6:00pm - 6:50pm *Restricted to BMGT students with 45 credit hours completed.*	Seats (Total: 55) VMH 1303
ESG1	Erin Saddler, Sadie Edmonds W 3:00pm - 3:50pm *Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD3 2230
ESG2	Erin Saddler, Dina Broydo W 3:00pm - 3:50pm *Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 3032

BMGT370 Introduction to Transportation

An overview of the transportation field with an emphasis on freight movements from the perspective of both providers of capacity and users of freight services. Examines the characteristics of the freight modes and the role of each mode as a major component of logistics and supply chain management. Explores the economics, energy use, and finances of each mode as well as the impact of government policies on each mode's future. Discussion of infrastructure and capacity needs of the transportation system and its ability to support the economy.

Restricted to BMGT majors with 53 credit hours completed.

0101	Leland Gardner TuTh 8:00am - 9:15am	Seats (Total: 35) VMH 2505
0201	Leland Gardner TuTh 9:30am - 10:45am	Seats (Total: 35) VMH 2505

BMGT372 Introduction to Logistics and Supply Chain Management

Credit only granted for: BMGT375 or BMGT372.

Supply chain management involves the coordination of suppliers, manufacturers, distributors, and retailers to ensure that products and services are available to the final consumer in a timely and cost-effective fashion. Logistics management is the subset of supply chain management dealing with the physical flows of product and includes such activities as transportation management, warehousing, materials handling, inventory management, and order fulfillment. Attention is paid to the logistics cost trade-offs within the firm and between members of the supply chain.

Restricted to BMGT majors with 53 credit hours completed.

0101	Niratcha Tungtisanont TuTh 11:00am - 12:15pm	Seats (Total: 40) VMH 2505
0201	Niratcha Tungtisanont TuTh 12:30pm - 1:45pm	Seats (Total: 40) VMH 2505
0301	Leland Gardner MW 11:00am - 12:15pm	Seats (Total: 40) ASY 1213
0401	Niratcha Tungtisanont TuTh 2:00pm - 3:15pm	Seats (Total: 40) VMH 2505

BMGT375 **Supply Chain Management for Non Business Majors**

Restriction: Must not have completed BMGT372; and must not be a major in the Robert H. Smith School of Business. Credit only granted for: BMGT375 or BMGT372. Additional information: Course does not apply to a Smith School degree. Course may be substituted by BMGT372 for General Business minor students only.

Examines management decision-making in the design, implementation and coordination of a firm's supply chain activities. Topics include transportation management, warehousing, materials handling, inventory management, and order fulfillment.

Open to all non-BMGT majors.

0101	Leland Gardner Class time/details on ELMs	Seats (Total: 180) ONLINE

BMGT380 **Business Law I**

Legal aspects of business relationships. Examination of torts and business crimes, contracts and agency. The law of personal property and bailment relationships. Survey of public policy issues.

0101	T Anenson MW 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 58) VMH 1412 ONLINE
	Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.	
0201	T Anenson MW 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 60) VMH 1412 ONLINE
	Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.	
0301	T Anenson MW 5:00pm - 6:15pm Class time/details on ELMs	Seats (Total: 60) VMH 1412 ONLINE
	Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.	
0401	Justin Reyna TuTh 9:30am - 10:45am	Seats (Total: 60) VMH 1303
	Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.	
0501	Justin Reyna TuTh 11:00am - 12:15pm	Seats (Total: 60) VMH 1303
	Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.	
0601	Justin Reyna TuTh 2:00pm - 3:15pm	Seats (Total: 60) VMH 1412
	Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.	
0701	Kevin McGarry W 7:00pm - 9:40pm	Seats (Total: 60) VMH 1303
	Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.	

ESG1	Stacy Hickox MW 11:00am - 12:15pm	Seats (Total: 60) BLD3 3230
	Restricted to BMGT-Shady Grove Seniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT380N **Business Law I**

Legal aspects of business relationships. Examination of torts and business crimes, contracts and agency. The law of personal property and bailment relationships. Survey of public policy issues.

Restricted to agricultural and resource economics majors (0111C) with 53 credit hours completed.

0101	T Anenson MW 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 2) VMH 1412 ONLINE

BMGT382 **Marketing and Innovation for Entrepreneurs**

Restriction: Must not have completed BMGT352. Credit only granted for: BMGT352, BMGT382 or BMGT456. Additional information: Course will not satisfy a Marketing major requirement.

Marketing and Innovation are two critically important activities that determine success in any business venture. This course will focus on understanding the fundamentals of marketing and innovation from the perspective of an entrepreneur. At a broad level, we will apply proven marketing frameworks (STP and 4Ps) to effectively deliver innovation in an entrepreneurial context.

0101	Idil Yaveroglu TuTh 12:30pm - 1:45pm	Seats (Total: 40) SPH 1302
	Restricted to Innovation and Entrepreneurship Minors and non-BMGT majors.	
ESG1	Mary Beth Furst TuTh 9:30am - 10:45am	Seats (Total: 45) BLD2 3032
	Restricted to BMGT-Shady Grove Juniors majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT383 **The Business of Sports**

(Perm req)

This course provides an overview of the history of sports management as a profession, while examining the many essential business principles necessary for effective leadership in the industry.

For students in the Sports Management Program.

0101	Tori Shay, Sue Sherburne Th 5:00pm - 7:40pm	Seats (Total: 25) VMH 1418

BMGT385 Operations Management

Credit only granted for: BMGT385 or ENME426.

Studies the design, management and improvement of a firm's processes and systems for creation and delivery of products and services. Includes strategic and operational views of supply chain, product development, and capacity analysis, highlighting the competitive advantages that operations management can provide the firm.

Restricted to BMGT majors and Business Analytics minors with 53 credit hours completed.

0101	Kazim Ruhi TuTh 11:00am - 12:15pm	Seats (Total: 50) VMH 1202
0201	Kazim Ruhi TuTh 12:30pm - 1:45pm	Seats (Total: 50) VMH 1202

BMGT390H Designing Innovative Systems

Prerequisite: ENES190 or BMGT190. Restriction: Must be in the QUEST program. Cross-listed with: ENES390. Credit only granted for: BMGT390 or ENES390.

QUEST students develop an understanding of complex systems that incorporate elements of business and technical design and analyze how these systems evolve over time and may be shaped by technology disruptions, internal decisions, and external forces. Students apply these concepts to real-world complex systems in a team environment.

Restricted to QUEST program students. Cross-listed with ENES390H.

0101	David Ashley MW 5:00pm - 6:15pm	Seats (Total: 55) ESJ 1215

BMGT392 Introduction to International Business Management

Prerequisite: ECON200.

A study of the domestic and foreign environmental factors affecting the international operations of U.S. business firms. The course also covers the administrative aspects of international marketing, finance and management.

Restricted to BMGT majors with 53 credit hours completed.

0101	Wilbur Chung MW 2:00pm - 3:15pm	Seats (Total: 40) VMH 1307

0201	Wilbur Chung	Seats (Total: 40)
	MW 3:30pm - 4:45pm	VMH 1307

BMGT395 **Principles of Management for Non Business Majors**

Restriction: Must not have completed BMGT364; and must not be a major in the Robert H. Smith School of Business. Credit only granted for: BMGT395 or BMGT364. Additional information: Course does not apply to a Smith School degree. Course may be substituted by BMGT364 for General Business minor students only.

Introduces concepts related to organization behavior. Topics include leadership, team decision making and management, conflict resolution and negotiations, organizational culture, and organization change. Students will learn how to apply those concepts and theories to understanding and critically analyzing various individual, interpersonal, group, and organizational management processes.

Restricted to General Business minors (#BU02).

0101	Trevor Foulk	Seats (Total: 180)
	Class time/details on ELMs	ONLINE

BMGT397 **Mentoring Multidisciplinary Teams**

Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: ENES397. Credit only granted for: BMGT397 or ENES397.

QUEST students practice essential skills for mentoring and coaching multidisciplinary teams. These include effective communications, facilitation, conflict resolution, and the ability to motivate. Students will practice these skills as mentors for student teams from BMGT/ENES 190H. In the process, they will strengthen their knowledge of design and quality techniques.

Restricted to QUEST program students. Cross-listed with ENES397.

0101	Emily Marks	Seats (Total: 9)
	Tu 5:00pm - 7:40pm	ESJ B0322

BMGT398 **Individual Study in Business and Management**

(Perm req)

Contact department for information to register for this course.

BMGT398A **Individual Study in Business and Management; Internship**

(Perm req)

Restricted to Smith School of Business students. Interested students should contact Erin Fields Saddler (esaddler@rhsmith.umd.edu) for details and permission.

0101	Erin Saddler	Seats (Total: 35)
	Contact instructor or department for details.	

ESG1	Erin Saddler Contact instructor or department for details. *Restricted to students at Shady Grove.*	Seats (Total: 10)	

BMGT398C **Individual Study in Business and Management; Undergraduate Teaching Scholars Training**

(Perm req)

Restricted to Accounting Teaching Scholars (FPTS).

0101	Progyan Basu Contact instructor or department for details.	Seats (Total: 19)	

BMGT398I **Individual Study in Business and Management; Information Technology and Business Tranformation (iTBT) Fellows**

Restricted to Information Technology and Business Transformation Fellows.

FP01	Kunpeng Zhang Th 5:00pm - 7:00pm	Seats (Total: 25) VMH 2505	

BMGT402 **Database Systems**

Recommended: BMGT302. Credit only granted for: INST327 or BMGT402.

The fundamentals of database management systems (DBMS), data models, query processing, and data warehouses, and their application in the development of business information systems will be covered. An important goal of this course is to understand the value of information resources and information management challenges within an organization.

Restricted to Information Systems majors with 60 credits completed and other BMGT majors and Business Analytics minors with 72 credits completed.

0101	John Bono TuTh 2:00pm - 3:15pm Th 6:00pm - 6:50pm	Seats (Total: 38) VMH 2203 VMH 2203	 Lab
0201	Yunfei Wang MW 3:30pm - 4:45pm Tu 6:00pm - 6:50pm	Seats (Total: 38) VMH 2203 VMH 2203	 Lab
0301	Yizhi Liu MW 9:30am - 10:45am Tu 5:00pm - 5:50pm	Seats (Total: 38) VMH 2203 VMH 2203	 Lab

0401	John Bono	Seats (Total: 38)	
	TuTh 8:00am - 9:15am	VMH 2203	
	Th 5:00pm - 5:50pm	VMH 2203	Lab

BMGT403 **Systems Analysis and Design**

Prerequisite: BMGT301; or students who have taken courses with comparable content may contact the department. Recommended: BMGT302.

Techniques and tools applicable to the analysis and design of computer-based information systems. System life cycle, requirements analysis, logical design of databases and performance evaluation. Emphasis on case studies. Project required that involves the design, analysis and implementation of an information system.

Restricted to Information System students with 72 credits completed.

0101	Hassan Ibrahim	Seats (Total: 35)
	MW 2:00pm - 3:15pm	VMH 2203
0201	Hassan Ibrahim	Seats (Total: 35)
	MW 12:30pm - 1:45pm	VMH 2203
0301	Hassan Ibrahim	Seats (Total: 35)
	M 7:00pm - 9:40pm	VMH 2203
0401	Hassan Ibrahim	Seats (Total: 35)
	Tu 7:00pm - 9:40pm	VMH 2203
0501	Joseph Drasin	Seats (Total: 35)
	W 7:00pm - 9:40pm	VMH 1336

BMGT406 **Developing Applications for the Web and Social Media**

Prerequisite: BMGT402 and BMGT302. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Credit only granted for: INST377 or BMGT406.

The design and development of Web applications and the underlying platforms and standards for Web application development will be covered. It will examine the phenomenon of social media, social networking and crowdsourcing and understand their use within organizations.

Restricted to Information Systems majors with 60 credits completed and other BMGT majors with 72 credits completed.

0101	Louiqa Raschid	Seats (Total: 20)
	MW 5:00pm - 6:50pm	VMH 2203

BMGT407 **Information Systems Projects**

(Perm req)

Prerequisite: BMGT402 and BMGT403. Restriction: Senior standing.

Senior capstone course for the information systems major. Collected knowledge from the IS courses and application to significant problems of size and complexity. State-of-the-art research ideas and current business and industrial practices in information systems.

Permission to register for the course is granted to Information Systems majors with 86 credit hours completed who will have completed BMGT407's prerequisites by the start of the Fall semester.

0101	Hassan Ibrahim MW 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 35) VMH 2203 ONLINE
0201	Hassan Ibrahim W 7:00pm - 9:40pm Class time/details on ELMs	Seats (Total: 35) VMH 2203 ONLINE

BMGT408C **Emerging Topics in Information Systems; Quality Web Development in Business**

Selected advanced topics covering emerging developments in the field of decision and information technologies.

Restricted to Quest Program students.

0101	Daniel Laurence Th 5:00pm - 7:40pm	Seats (Total: 30) VMH 1415

BMGT408E **Emerging Topics in Information Systems; Big Data and AI using Cloud Computing**

Selected advanced topics covering emerging developments in the field of decision and information technologies.

Prerequisite: BMGT302. Restricted to Information Systems majors with 60 credit hours completed and other BMGT majors and Business Analytics minors with 72 credit hours completed.

0101	James McCoy MW 12:30pm - 1:45pm	Seats (Total: 35) VMH 1202

BMGT411 **Ethics and Professionalism in Accounting**

Prerequisite: BMGT311. Restriction: Must be in Accounting program.

Analysis and discussion of issues relating to ethics and professionalism in accounting.

Restricted to Accounting majors with 86 credit hours completed.

0101	Jeffrey Milton MW 11:00am - 12:15pm	Seats (Total: 30) VMH 1307
0201	Jeffrey Milton MW 9:30am - 10:45am	Seats (Total: 20) VMH 3330H

BMGT417 **Taxation of Corporations, Partnerships and Estates**

Prerequisite: BMGT221.

Federal taxation of corporations using the life-cycle approach-formation, operation, assessment, merger, reorganization and liquidation. Overviews of pass-through entities - partnerships and s-corporations -using the life-cycle approach, and the tax consequences of wealth transfers by individuals - gift and estate taxation. Both tax planning and compliance issues are addressed.

Restricted to Accounting majors with 84 credit hours completed.

0101	Jeffrey Milton MW 2:00pm - 3:15pm	Seats (Total: 40) VMH 1314

BMGT422 **Auditing Theory and Practice**

Prerequisite: BMGT310; and must have completed or be concurrently enrolled in BMGT311.

A study of the independent accountant's attest function, generally accepted auditing standards, compliance and substantive tests and report forms and opinions.

0101	James McKinney MW 11:00am - 12:15pm *Restricted to Accounting majors.*	Seats (Total: 35) VMH 1518
0201	James McKinney MW 12:30pm - 1:45pm *Restricted to Accounting majors.*	Seats (Total: 35) VMH 1518
ESG1	Patrick McNamee TuTh 11:00am - 12:15pm *Restricted to BMGT-Shady Grove Seniors majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 3022

BMGT428J **Special Topics in Accounting; Accounting Advisory for Closely Held Businesses**

Selected advanced topics in Accounting.

Prerequisites: BMGT220 and BMGT340. Restricted to Accounting and Finance majors.

0101	Brent Solomon TuTh 3:30pm - 4:45pm	Seats (Total: 20) VMH 2509

BMGT430 **Data Modeling in Business**

Prerequisite: BMGT231 or BMGT230; or permission of BMGT-Robert H. Smith School of Business.

Explores the role of statistical models in business analytics to drive managerial decision-making and improve performance through the use of relevant data-motivated examples. Topics include regression models (both simple and multiple regression, as well as logistic regression for binary data), model validation, variable transformation, variable selection, discriminant analysis, and forecasting. These topics are modeled using state-of-the-art data analytics software.

Restricted to BMGT majors and Business Analytics minors.

0101	Radu Lazar MW 8:00am - 9:15am	Seats (Total: 38) VMH 1206
0201	Radu Lazar MW 9:30am - 10:45am	Seats (Total: 38) VMH 1206
0301	Radu Lazar MW 12:30pm - 1:45pm	Seats (Total: 38) VMH 1311
0401	Radu Lazar MW 2:00pm - 3:15pm	Seats (Total: 38) VMH 1202

BMGT431 **Data Analytics**

Prerequisite: BMGT430.

An introduction to the tools and techniques that are central to the analysis of abundant data that is being collected in many forms including web traffic, social network data, and reviews and comments on websites.

Restricted to Business Analytics minors or OM majors.

0101	Radu Lazar TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1307
0201	Radu Lazar TuTh 5:00pm - 6:15pm	Seats (Total: 45) VMH 1307

BMGT434 **Analytics Consulting: Cases and Projects**

Prerequisite: BMGT332 and BMGT385.

This course assumes that students have already been introduced to the concepts and techniques of operations research/business analytics (OR/BA). Published papers, short cases, and projects in OR/BA will be analyzed and discussed in a thoughtful way, taking into account the soft (people-related) issues and the hard (mathematical/optimization) issues.

Restricted to BMGT majors, QUEST students, and Business Analytics minors with 72 credit hours completed.

0101	Bruce Golden	Seats (Total: 40)
	MW 2:00pm - 3:15pm	VMH 1206

BMGT435 Business Process Simulation

Prerequisite: BMGT332 and BMGT385.

Covers the methods for computer simulation modeling and analysis of complex systems. Students are assumed to have been introduced to the basic techniques and applications in the field of operations management and business analytics. Course emphasis is on modeling of real-world systems (for example, inventory or queueing systems), implementing simulations in special purpose software, and analyzing simulation results.

Restricted to BMGT majors or Business Analytics minors with 60 credits completed.

0101	Sujin Kim	Seats (Total: 45)
	TuTh 9:30am - 10:45am	VMH 1307

BMGT438A Special Topics in Operations Management; Applied Quantitative Analysis

Selected advanced topics in operations management.

Course restricted to QUEST students. Cross-listed with ENES489A. Credit granted for BMGT438A or ENES489A.

0101	Maria Bardossy	Seats (Total: 50)
	MW 2:00pm - 3:15pm	VMH 1335

BMGT440 Advanced Financial Management

Prerequisite: BMGT340.

Analysis and discussion of cases and readings relating to financial decisions of the firm. The application of finance concepts to the solution of financial problems is emphasized.

Restricted to BMGT majors with 68 credit hours completed.

0101	James Seward	Seats (Total: 50)
	MW 9:30am - 10:45am	VMH 1335

0201	David Kass TuTh 2:00pm - 3:15pm	Seats (Total: 50) VMH 1335
0301	David Kass TuTh 3:30pm - 4:45pm	Seats (Total: 50) VMH 1335
0401	James Seward MW 11:00am - 12:15pm	Seats (Total: 50) VMH 1335
0501	David Kass TuTh 11:00am - 12:15pm	Seats (Total: 50) VMH 1335

BMGT441 **Fixed Income**

Prerequisite: BMGT340.

Describes important financial instruments which have market values that are sensitive to interest rate movements. Develops tools to analyze interest rate sensitivity and value fixed income securities. Defines and explains the vocabulary of the bond management business.

Restricted to Finance majors with 72 credit hours completed.

0101	Aysun Alp Paukowits MW 9:30am - 10:45am	Seats (Total: 45) VMH 1418
0201	Aysun Alp Paukowits MW 11:00am - 12:15pm	Seats (Total: 45) VMH 1418

BMGT443 **Applied Equity Analysis and Portfolio Management**

Prerequisite: BMGT343.

Study and application of the concepts, methods, models, and empirical findings to the analysis, valuation and selection of securities, especially common stock.

Restricted to BMGT majors with 84 credit hours completed.

0101	Joseph Perfetti MW 11:00am - 12:15pm	Seats (Total: 48) VMH 3505
0201	Joseph Perfetti MW 2:00pm - 3:15pm	Seats (Total: 48) VMH 3505
0301	Joseph Perfetti MW 3:30pm - 4:45pm	Seats (Total: 48) VMH 3505

0401	Joseph Perfetti MW 12:30pm - 1:45pm	Seats (Total: 48) VMH 3505

BMGT444 **Futures and Options Contracts**

Prerequisite: BMGT343. Credit only granted for: BMGT444 or MATH424.

The institutional features and economic rationale underlying markets in futures and options. Hedging, speculation, structure of futures prices, interest rate futures, efficiency in futures markets and stock and commodity options.

Restricted to Finance majors with 84 credit hours completed.

0101	Michael Cichello MW 5:00pm - 6:15pm	Seats (Total: 45) VMH 1307
0201	Michael Cichello MW 12:30pm - 1:45pm	Seats (Total: 45) ARC 1101

BMGT445 **Banking and Financial Institutions**

Prerequisite: BMGT340. Recommended: ECON330 or BMGT341.

Analysis and discussion of cases and readings in commercial bank management. The loan function is emphasized; also the management of liquidity reserves, investments for income and source of funds. Bank objectives, functions, policies, organization, structure, services and regulation are considered.

Restricted to Finance majors with 84 credit hours completed.

0101	Ping McLemore Tu 7:00pm - 9:40pm	Seats (Total: 45) VMH 1303
0201	Ping McLemore W 5:00pm - 7:40pm	Seats (Total: 45) VMH 1335

BMGT446 **International Finance**

Prerequisite: BMGT340.

Financial management from the perspective of the multinational corporation. Topics covered include the organization and functions of foreign exchange and international capital markets, international capital budgeting, financing foreign trade and designing a global financing strategy. Emphasis of the course is on how to manage exchange and political risks while maximizing benefits from global opportunity sets faced by the firm.

Restricted to Finance and International Business majors with 72 credit hours completed.

0101	Chengjun Wu TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1335
0201	Vojislav Maksimovic W 7:00pm - 9:40pm	Seats (Total: 45) VMH 1307
0301	Chengjun Wu TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1335

BMGT448X **Special Topics in Finance; Private Equity Strategy & Execution**

Selected advanced topics in finance.

Prerequisite: BMGT340. Restricted to Finance majors with 60 or more credits completed.

0101	Jeron Davis M 7:00pm - 9:40pm	Seats (Total: 50) VMH 1202

BMGT448Y **Special Topics in Finance; Behavioral Finance**

Selected advanced topics in finance.

Restricted to Finance majors with 72 credit hours completed. Prerequisite: BMGT343. Discusses the interwoven effect of human psychology and how it can create unexpected results in financial markets. Focuses not only on how human behavior and decisioning that affects broader markets and transactions, but also delves into the relevancy on a personal financial level. Explores a myriad of real life cases and the consequences of irrational markets and decisioning.

0101	Jennifer Hsin TuTh 11:00am - 12:15pm	Seats (Total: 40) VMH 1314

BMGT449F **Investment Fund Management: Lemma Senbet Fund**

The Lemma Senbet Fund is a year-long, advanced finance course available to undergraduate finance majors in their senior year. Ten to twelve students will be selected in the spring of their junior year to participate on the fund, two as portfolio managers and eight to ten as equity analysts. The course provides students with the opportunity to apply what they have learned in finance classes to actual investment decisions, through researching real companies and managing a portfolio of real money.

Restricted to Lemma Senbet Fund Fellows (FPSF).

FP01	Sarah Kroncke TuTh 12:00pm - 1:50pm	Seats (Total: 12) VMH 2509

BMGT450 **Integrated Marketing Communications**

Prerequisite: BMGT350. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

In-depth study of coordinated marketing activities including advertising, sales promotion, Internet marketing, direct marketing and personal selling. Emphasizes strategic planning to effectively use these promotional tools to communicate with customers and meet marketing goals. Blends theory and current practice to provide managerial orientation.

ESG1	Marjorie Bonavia TuTh 9:30am - 10:45am	Seats (Total: 45) BLD2 3022
	Restricted to BMGT-Shady Grove Seniors majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT453 Retail Management

Prerequisite: BMGT220 and BMGT350. Credit only granted for: BMGT353 or BMGT453. Formerly: BMGT353.

Planning and implementing retail marketing strategy. Application to store and non-store (catalog, internet) retailing. Evaluation of how environmental trends in the consumer market, competition, the economy and technology affect retail strategy in the U.S. and global market.

Restricted to BMGT majors with 60 credit hours completed.

0101	Jie Zhang TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1206
0201	Jie Zhang TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1206

BMGT454 Global Marketing

Prerequisite: BMGT350.

Marketing functions from the global executive's viewpoint, including coverage of global marketing policies relating to product adaptation, data collection and analysis, channels of distribution, pricing, communications and cost analysis. Consideration is given to the cultural, legal, financial and organizational aspects of global marketing.

Restricted to BMGT majors with 72 credit hours completed.

0101	Kathleen Kelly TuTh 11:00am - 12:15pm	Seats (Total: 45) TYD 2106

BMGT456 Customer-Centric Innovation

Prerequisite: BMGT350. Credit only granted for: BMGT352, BMGT382 or BMGT456. Formerly: BMGT352.

Addresses the management of new products and services with a focus on the innovation process, specifically the development and launching of new products or services: Opportunity Identification, Concept Generation, Design, Testing and Launch.

Restricted to BMGT majors and QUEST students with 60 credits.

0101	Idil Yaveroglu TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1415

BMGT457 **Marketing Policies and Strategies**

Prerequisite: BMGT350.

This capstone course ties together various marketing concepts using the fundamentals of strategic market planning as the framework. Application of these principles is accomplished by analyzing and discussing cases and by playing a marketing strategy computer simulation game. Analysis of current business articles to understand the link between theory and real-world problem solving.

Restricted to Marketing majors with 100 credit hours completed.

0101	Mary Harms TuTh 11:00am - 12:15pm	Seats (Total: 40) VMH 1336
0201	Mary Harms TuTh 12:30pm - 1:45pm	Seats (Total: 40) SQH 1117

BMGT458A **Special Topics in Marketing; Design and Innovation in Marketing**

(Perm req)

Selected advanced topics in marketing.

FP01	Mary Harms TuTh 3:30pm - 4:45pm	Seats (Total: 35) VMH 1336
	Restricted to students in the Strategic Design and Innovation Fellows program.	

BMGT458B **Special Topics in Marketing; Design Applications in Marketing and Branding**

(Perm req)

Selected advanced topics in marketing.

FP01	Lance Wain M 7:00pm - 9:40pm	Seats (Total: 35) VMH 1307
	Restricted to students in the Strategic Design and Innovation Fellows program.	

BMGT458Q **Special Topics in Marketing; Computer Graphics Workshop**

Selected advanced topics in marketing.

FP01	Elizabeth Bagley W 7:00pm - 9:40pm	Seats (Total: 26) ATL 1410
	Restricted to students in the Strategic Design and Innovation Fellows program.	

BMGT458R **Special Topics in Marketing; Advanced Computer Graphics Workshop**

Selected advanced topics in marketing.

Restricted to students in the Strategic Design and Innovation Fellows program.

FP01	Elizabeth Bagley W 4:00pm - 6:40pm	Seats (Total: 17) ATL 1410

BMGT461 **Entrepreneurship**

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

0101	Sheetal Singh Tu 7:00pm - 9:40pm	Seats (Total: 20) VMH 1206
	Restricted to BMGT majors with 72 credit hours completed. Non-majors should register for BMGT 461N.	
ESG1	Le-Marie Thompson TuTh 2:00pm - 3:15pm	Seats (Total: 45) BLD2 2062
	Restricted to BMGT-Shady Grove Juniors majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT461M **Entrepreneurship**

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Restricted to Innovation & Entrepreneurship Minors (#BU03).

0101	Brent Goldfarb	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	PHY 4221

BMGT461N Entrepreneurship

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Restricted to non-BMGT majors with 72 credits. Not open to innovation and Entrepreneurship minors.

0101	Sheetal Singh	Seats (Total: 20)
	Tu 7:00pm - 9:40pm	VMH 1206

BMGT463 Cross-cultural Challenges in Business

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Examines in depth the nature of international cultural value-differences and their behavioral-related effects in the workplace. Topics include decision-making and leadership styles and reactions to various work assignments and reward structures.

0101	Debra Shapiro	Seats (Total: 45)
	MW 2:00pm - 3:15pm	VMH 1418
	Restricted to International Business & Mgmt majors with 72 credits.	

BMGT466 Global Business Strategy

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Focuses on the strategic challenges that directly result from and are associated with the globalization of industries and companies. Topics include drivers of industry globalization, difference between global and multi-domestic industry, global expansion strategies, sources of competitive advantage in a global context, and coordination of a company across a global network.

Restricted to International Business majors and Management majors with 72 credit hours completed.

0101	Paulo Prochno	Seats (Total: 32)
	MW 9:30am - 10:45am	VMH 2511
	This section brings Smith students (in person) together with students from Insper business school in Brazil who will be streamed into the classroom. Case analysis and project groups will be a mix of Smith and Insper students. Final projects will involve developing proposals to internationalize real Brazilian companies.	

0201	Paulo Prochno	Seats (Total: 58)
	MW 12:30pm - 1:45pm	VMH 1335

BMGT468A **Special Topics in Management and Organization; Causal Inference and Data Analytics for Managers**

Selected advanced topics in management and organization.

Prerequisite: BMGT230; Restricted to Management Majors (0503G). The goal of the course is to provide students with a toolkit for linking data analysis and strategic decision making. Even while there is an increasing proliferation of data and analysis tools, making informed predictions about how and when policy decisions will influence performance outcomes is challenging. Making informed and useful predictions requires: a) understanding the basics of data structures, variables, and relationships; b) a nuanced understanding of the limits of statistical analysis as applied to causal reasoning; c) the application of research design solutions for common inferential pitfalls; and d) facility with credible research and reporting practices.

0101	David Waguespack, Evan Starr	Seats (Total: 12)
	TuTh 9:30am - 10:45am	VMH 4534

BMGT468G **Special Topics in Management and Organization; The Value Creation Challenge**

Selected advanced topics in management and organization.

Visit this link for more information.

0101	Oliver Schlake	Seats (Total: 12)
	W 5:00pm - 7:40pm	KEY 0125
	Restricted to BMGT majors with 30 credit hours completed.	

BMGT468I **Special Topics in Management and Organization; Managerial Skills for International Business**

Selected advanced topics in management and organization.

Contact department for information to register for this course.

BMGT468R **Special Topics in Management and Organization; Fearless Founders: New Venture Practicum**

(Perm req)

Selected advanced topics in management and organization.

0101	Le-Marie Thompson	Seats (Total: 25)
	M 5:00pm - 7:40pm	VMH 1311

BMGT468V **Special Topics in Management and Organization; Business Models and Methods to Affect Social Change**

Selected advanced topics in management and organization.

Restricted to students with 30 or more credits.

0101	David Kirsch TuTh 2:00pm - 3:15pm	Seats (Total: 35) VMH 1518

BMGT468X **Special Topics in Management and Organization; The Value Creation Challenge**

Selected advanced topics in management and organization.

Visit this link for more information.

0101	Oliver Schlake W 5:00pm - 7:40pm *Restricted to non-BMGT majors with 30 credit hours completed.*	Seats (Total: 18) KEY 0125

BMGT468Y **Special Topics in Management and Organization; Entrepreneurial Capitalism Around the World**

Selected advanced topics in management and organization.

Restricted to students with 60 credit hours completed.

0101	David Sicilia MW 9:30am - 10:45am	Seats (Total: 60) TYD 0102

BMGT468Z **Special Topics in Management and Organization; Create the Future through Systems Thinking and Design**

Selected advanced topics in management and organization.

0101	Gerald Suarez MW 11:00am - 12:15pm *Restricted to students with 60 credit hours completed.*	Seats (Total: 35) TYD 2106
0201	Gerald Suarez MW 12:30pm - 1:45pm *Restricted to BMGT majors only.*	Seats (Total: 35) ESJ 2101

BMGT472 **Purchasing and Inbound Logistics**

Prerequisite: BMGT372.

Analysis of the resupply activities of logistics management, including purchasing policies, transportation planning, and inventory control. Attention is directed toward total cost minimization and the establishment of a sustainable competitive advantage based on procurement.

Restricted to Supply Chain Management majors only.

0101	Philip Evers MW 9:30am - 10:45am	Seats (Total: 40) VMH 1202

0201	Ruifeng Wang TuTh 12:30pm - 1:45pm	Seats (Total: 40) VMH 1314

BMGT475 **Supply Chain Strategy and Network Design**

Prerequisite: BMGT372.

Analysis of the strategic aspects of supply chain management. Emphasis on the creation of end-user value through supply chain cost reductions, service improvements or both. Attention is directed toward the enabling role of technology in support of strategy evaluation and implementation.

Restricted to Supply Chain Management majors (0503T).

0101	Martin Dresner MW 2:00pm - 3:15pm	Seats (Total: 35) TYD 1132

BMGT476 **Technology Applications in Supply Chain Management**

Prerequisite: BMGT372.

An understanding of the role of technology in managing the supply chain. Provides students with hands-on experience in advanced software systems that build on top of enterprise resource planning systems. Major emphasis is placed on demonstrating that these systems result in supply chain cost reductions and service improvements.

Restricted to Supply Chain Management and Information Systems majors.

0101	Hongyi Zhang TuTh 11:00am - 12:15pm	Seats (Total: 24) VMH 3522

BMGT477 **International Supply Chain Management**

The study of the importance of the supply chain management within a global context. Topics covered include: the structure, service, pricing and competitive relationships among international carriers and transport intermediaries as well as documentation, location decisions, international sourcing/distribution and management of inventory throughout the international supply chain.

Restricted to Supply Chain Management and International Business majors.

0101	Abhay Grover TuTh 3:30pm - 4:45pm	Seats (Total: 30) VMH 1206
0201	Niratcha Tungtisanont TuTh 5:00pm - 6:15pm	Seats (Total: 30) VMH 1206

BMGT478G **Special Topics in Supply Chain Management; Supply Chain Consulting**

Selected advanced topics in supply chain management.

Prerequisite: Must have completed or be concurrently enrolled in BMGT372. Restriction: Must be a student with SCM majors (0503T).

0101	Thomas Corsi M 6:30pm - 9:10pm	Seats (Total: 30) VMH 1336

BMGT484 Digital Marketing

Prerequisite: BMGT350. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Examines the process of developing, implementing, and analyzing strategies for successfully marketing a variety of existing and potential products and services through digital means, including the web, social media, and mobile apps. Both the development and analysis of digital media for marketing will be discussed.

Restricted to BMGT majors with 60 credit hours completed.

0101	Wendy Moe TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1415
0201	Jeffrey Lawrence TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1415

BMGT485 Project Management

Prerequisite: BMGT231 or BMGT230; or students who have taken courses with comparable content may contact the department. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453.

Modern project management techniques that are used by modern practicing professionals will be covered. Particular attention is given to the management of technology based systems and projects in a business enterprise. The topics covered include: defining project scope, alignment of projects with enterprise strategy, managing project cost, time and risks using tools such as CPM/PERT, and measuring project performance.

Restricted to Information Systems majors with 60 credit hours completed and BMGT majors & Quest students with 72 credit hours completed.

0101	Paul Shapiro MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1335
0201	Paul Shapiro MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1307

BMGT490H QUEST Capstone Professional Practicum

Prerequisite: ENES390 or BMGT390. Cross-listed with: ENES490. Credit only granted for: BMGT490 or ENES490.

The capstone course for the QUEST Honors Program provides students with an opportunity to learn in multidisciplinary teams of business, engineering, and science students in a real-world setting. Companies engage teams of QUEST students with real organizational challenges and dedicate resources to help students address these problems. Student teams must enhance their skills in quality management, process improvement, and systems design and will apply these to add value to a client. In the process, students will improve their teamwork skills.

Restricted to Quest Program students.

0101	David Ashley, Maria Bardossy MW 3:30pm - 4:45pm Contact instructor or department for details.	Seats (Total: 45) TYD 1132

BMGT491 **Scoping Experiential Learning Projects**

Prerequisite: BMGT190 or ENES190. Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: ENES491. Credit only granted for: BMGT491 or ENES491.

QUEST students cultivate relationships with new and current corporate partners and prepare project scopes for QUEST's introductory course, BMGT/ENES 190H, and capstone course, BMGT/ENES 490H. Requires independent work communicating with clients and class visits to a variety of potential project sites.

Prerequiste: BMGT190H or ENES190H. Restricted to Quest. Cross-listed with ENES491.

0101	Jessica Roffe F 10:00am - 12:40pm Contact instructor or department for details.	Seats (Total: 9) VMH 3330H

BMGT495 **Strategic Management**

A case-based course where students learn to play the role of the "strategic manager" who defines the scope of its business operations and, within the chosen scope, how the firm will compete against rivals. This course focuses on how a firm can both formulate effective business-level and corporate-level strategies to achieve competitive advantage and earn above average profits.

Restricted to BMGT students with 60 credit hours completed.

0101	Clarence Wesley MW 9:30am - 10:45am	Seats (Total: 45) VMH 1415
0201	Protiti Dastidar MW 11:00am - 12:15pm	Seats (Total: 45) ATL 2428
0301	Protiti Dastidar MW 12:30pm - 1:45pm	Seats (Total: 45) ATL 2428

0401	Clarence Wesley MW 2:00pm - 3:15pm	Seats (Total: 45) BPS 0283
0501	William Hurst MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1418
0601	William Hurst MW 5:00pm - 6:15pm	Seats (Total: 45) VMH 1418
0701	Waverly Ding TuTh 9:30am - 10:45am	Seats (Total: 45) ARC 1103
0801	Vineet Gambhir TuTh 11:00am - 12:15pm TuTh 11:00am - 12:15pm	Seats (Total: 45) KEY 0106 ONLINE
0901	Waverly Ding TuTh 12:30pm - 1:45pm	Seats (Total: 45) TWS 1107
1001	Roy Thomason TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1336

BMGT600 **Leadership and Teamwork**

(Perm req)

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BMGT600, BUSI662 or BUSM600.

Course examines concepts of team-building and leadership which are critical to managerial success. Topics include leadership, decision making, communication and conflict, work motivation, building effective teams, and organizational change and culture.

0501	Nicole Coomber **Meets October 23, 2023 - December 15, 2023** MW 12:00pm - 1:50pm	Seats (Total: 0) VMH 1520

BMGT602 **Introduction to Financial Accounting**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI610, BUAC602, BUFN602, or BMGT602.

Overview of financial accounting, periodic financial statements and the financial reporting process. Importance of financial statements as information source for creditors and investors and as a means by which managers can communicate information about their firms.

0501	Nick Seybert	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	MW 10:00am - 11:50am	VMH 1520
	Contact instructor or department for details.	

BMGT606 **Data Driven Decision Making**

(Perm req)

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI630 or BMGT606.

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

0501	Tunay Tunca	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	TuTh 10:00am - 11:50am	VMH 1511

BMGT610 **Financial Management**

(Perm req)

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUSI640, BUFN610, or BMGT610.

Focuses on the valuation of the real assets of firms as well as the valuation of stocks and bonds, the primary financial assets in an economy. While details vary, the conceptual foundations of valuation boil down to three themes: time value of money, no-arbitrage, and systematic risk.

0501	Richmond Mathews	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	TuTh 10:00am - 11:50am	VMH 1511

BMGT612 **Marketing Management**

(Perm req)

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUSI650 or BMGT612.

Analysis of marketing problems and evaluation of specific marketing efforts regarding the organization's products and services, pricing activities, channel selection, and promotion strategies in both domestic and international markets.

0501	Judy Frels **Meets October 23, 2023 - December 15, 2023** MW 10:00am - 11:50am	Seats (Total: 0) VMH 1511

BMGT758I **Special Topics in Business and Management; Your Purposeful Career Journey**

Selected advanced topics in the various fields of graduate study in business.

0501	Sarah Wolek **Meets August 28, 2023 - October 16, 2023** W 4:00pm - 5:50pm Contact instructor or department for details.	Seats (Total: 35) VMH 1518

BMGT758N **Special Topics in Business and Management; Negotiation and Conflict Management**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

0501	Rellie Rozin **Meets August 28, 2023 - October 16, 2023** MW 12:00pm - 1:50pm Contact instructor or department for details.	Seats (Total: 0) VMH 2505

BMGT758X **Special Topics in Business and Management; Experiential Learning I**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

0501	Rellie Rozin, Roy Thomason **Meets October 23, 2023 - December 15, 2023** W 2:00pm - 3:50pm Contact instructor or department for details.	Seats (Total: 42) VMH 1511

BMGT808G **Special Topics in Information Systems; Applied Microeconomics**

Special topics specific to the Information Systems doctoral field of study.

0101	Kislaya Prasad **Meets August 28, 2023 - October 18, 2023** W 1:00pm - 4:00pm	Seats (Total: 12) VMH 4335

BMGT808R **Special Topics in Information Systems; Research Seminar in Decision, Operations and Information Technologies**

Special topics specific to the Information Systems doctoral field of study.

0101	Siva Viswanathan Contact instructor or department for details.	Seats (Total: 12)

BMGT808V **Special Topics in Information Systems; Iesearch in Strategy and Information Systems I**

Special topics specific to the Information Systems doctoral field of study.

0101	Peng Huang **Meets August 28, 2023 - October 16, 2023** F 1:30pm - 4:55pm	Seats (Total: 12) VMH 3330H

BMGT808W **Special Topics in Information Systems; Research in Strategy and Information Systems II**

Special topics specific to the Information Systems doctoral field of study.

0101	Jui Ramaprasad **Meets October 23, 2023 - December 11, 2023** M 1:00pm - 4:25pm	Seats (Total: 12) VMH 2509

BMGT818A **Special Topics in Accounting and Information Assurance; Behavioral Research in Accounting**

Special topics specific to the Accounting and Information Assurance doctoral field of study.

0101	Nick Seybert F 10:30am - 1:00pm	Seats (Total: 12) VMH 4535

BMGT818R **Special Topics in Accounting and Information Assurance; Workshop in Accounting Research**

Special topics specific to the Accounting and Information Assurance doctoral field of study.

0101	Michael Kimbrough Contact instructor or department for details.	Seats (Total: 12)

BMGT828 **Independent Study in Business and Management**
Contact department for information to register for this course.

BMGT830 **Operations Research: Linear Programming**

Prerequisite: MATH240; or students who have taken courses with comparable content may contact the department; or permission of BMGT-Robert H. Smith School of Business.

Concepts and applications of linear programming models, theoretical development of the simplex algorithm, and primal-dual problems and theory.

0101	Raghu Raghavan	Seats (Total: 12)
	TuTh 12:30pm - 1:45pm	LEF 1221

BMGT834 **Operations Research: Probabilistic Models**

Prerequisite: MATH241; and (STAT400; or students who have taken courses with comparable content may contact the department). Or permission of BMGT-Robert H. Smith School of Business.

Theoretical foundations for the construction, optimization, and applications of probabilistic models. Queueing theory, inventory theory, Markov processes, renewal theory, and stochastic linear programming.

0101	Ilya Ryzhov	Seats (Total: 12)
	W 10:00am - 12:40pm	VMH 4335

BMGT838R **Special Topics in Operations Management/Management Science; Research Seminar in Decision, Operations and Information Technologies**

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Zhi-Long Chen	Seats (Total: 12)
	Contact instructor or department for details.	

BMGT840 **Seminar in Financial Theory**

Prerequisite: Permission of BMGT-Robert H. Smith School of Business.

Seminar in selected classic and current theoretical and empirical research in the foundations of finance.

0101	Yueyang Han	Seats (Total: 12)
	F 2:30pm - 5:30pm	VMH 3332

BMGT848A **Special Topics in Finance; Financial Research Methods**

Special topics specific to the Finance doctoral field of study.

0101	Vojislav Maksimovic	Seats (Total: 12)
	Meets October 23, 2023 - December 11, 2023	
	Th 7:00pm - 9:40pm	Location: TBA

BMGT848F **Special Topics in Finance; Workshop in Finance Research**

Special topics specific to the Finance doctoral field of study.

0101	Serhiy Kozak F 9:00am - 12:00pm	Seats (Total: 12) VMH 1330

BMGT858C **Special Topics in Marketing; Consumer Behavior**

Special topics specific to the Marketing doctoral field of study.

Cross-listed with BDBA858C. Credit only granted for BMGT858C or BDBA858C.

0101	Amna Kirmani W 9:00am - 11:40am	Seats (Total: 12) VMH 3332

BMGT858P **Special Topics in Marketing; Marketing Models**

Special topics specific to the Marketing doctoral field of study.

0101	Jie Zhang M 1:30pm - 4:30pm	Seats (Total: 12) VMH 2534

BMGT858R **Special Topics in Marketing; Marketing Research Seminar**

Special topics specific to the Marketing doctoral field of study.

Course restricted to Marketing PhD students only

0101	Jason Choi F 10:00am - 12:30pm	Seats (Total: 16) VMH 1412

BMGT868C **Special Topics in Organizational Behavior/Human Resource Management; Career and Professionalization Workshop in Management and Organization**

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	David Kirsch F 12:30pm - 2:00pm	Seats (Total: 20) Location: TBA

BMGT868L **Special Topics in Organizational Behavior/Human Resource Management; Seminar in Leadership**

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Vijaya Venkataramani **Meets October 23, 2023 - December 11, 2023** M 9:00am - 12:30pm Contact instructor or department for details.	Seats (Total: 12) VMH 2509

BMGT868N **Special Topics in Organizational Behavior/Human Resource Management; Open Science Workshop**

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Gilad Chen **Meets September 11, 2023 - November 6, 2023** M 1:00pm - 4:00pm	Seats (Total: 12) VMH 4534

BMGT868P **Special Topics in Organizational Behavior/Human Resource Management; Organizational Behavior and Human Resource Management Presentations**

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Vijaya Venkataramani W 1:00pm - 2:30pm	Seats (Total: 10) VMH 2534

BMGT868W **Special Topics in Organizational Behavior/Human Resource Management; Work Motivation**

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Trevor Foulk **Meets August 9, 2023 - September 10, 2023** Contact instructor or department for details.	Seats (Total: 12)

BMGT878C **Special Topics in Strategic Management and Entrepreneurship; Cross Disciplinary Workshop**

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Instructor: TBA Th 11:00am - 12:30pm	Seats (Total: 12) VMH 3330H

BMGT878F **Special Topics in Strategic Management and Entrepreneurship; Sociological Foundations**

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Waverly Ding **Meets October 18, 2023 - December 11, 2023** W 1:00pm - 4:35pm	Seats (Total: 12) VMH 2509

BMGT878P **Special Topics in Strategic Management and Entrepreneurship; Strategy and Entrepreneurship PhD Presentations**

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Waverly Ding, Brent Goldfarb Th 9:15am - 10:45am	Seats (Total: 12) VMH 3330H

BMGT878R **Special Topics in Strategic Management and Entrepreneurship; Straegy and Entrepreneurship Research Methods Foundation**

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	David Waguespack **Meets August 28, 2023 - October 16, 2023** Th 1:00pm - 4:35pm	Seats (Total: 12) VMH 4535

BMGT878T **Special Topics in Strategic Management and Entrepreneurship; Organizational Theory**

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

Cross-listed with BDBA858T. Credit only granted for BMGT878T or BDBA858T.

0101	David Kirsch **Meets August 28, 2023 - October 16, 2023** W 1:00pm - 4:35pm	Seats (Total: 12) VMH 2509

BMGT878Y **Special Topics in Strategic Management and Entrepreneurship; Best Methods**

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Brent Goldfarb, Evan Starr W 9:00am - 12:30pm	Seats (Total: 12) VMH 4534

BMGT888W **Special Topics in Supply Chain Management; Workshop in Supply Chain Management**

Special topics specific to the Supply Chain Management doctoral field of study.

0101	Martin Dresner F 1:00pm - 3:00pm	Seats (Total: 12) VMH 4535

BMGT898 **Pre-Candidacy Research**
Contact department for information to register for this course.

BMGT899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BMSO Online Business MS Programs Fall 2023

BMSO600 **Data, Models and Decisions**

Prerequisite: Permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in an online Business Master of Science program; or permission of BMGT-Robert H. Smith School of Business.

The field of data analytics is a very vibrant and broad field. The amount of data available and computing power have exploded in recent years. There is an increasing demand for business analysts who can select and apply the appropriate methods and interpret the results within the context of the problem. The goal of this course is to learn methods for exploring data and building models with the purpose of supporting data-driven decision making. The content of the course can be grouped as follows: Data Exploration, Probability, Confidence Interval Estimation, Hypothesis Testing and Regression Analysis. The focus will be on exploring realistic business scenarios, analyzing datasets using the appropriate analytical techniques, interpreting the analytic output within the context of the business scenario and translating the statistical results into actionable insights.

MS11	Maria Bardossy	Seats (Total: 60)
	Meets August 28, 2023 - December 15, 2023	
	Tu 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BMSO601 **Database Management Systems**

Prerequisite: Permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in an online Business Master of Science program; or permission of BMGT-Robert H. Smith School of Business.

The fundamentals of managing data and information within an organization, including enterprise level platforms and tools for data driven analytics. Includes processes for acquiring and cleaning data, storing data, making it available for analytics, visualizing output, and archiving the data for long term use. Involves computational thinking, covers significant theoretical material on data models and queries, and teaches several different analytics and programming tools.

MS11	John Bono	Seats (Total: 60)
	Meets August 28, 2023 - December 15, 2023	
	M 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BMSO758F **Special Topics in Business; Financial Analytics**

Selected advanced topics in the various fields of graduate study in business.

MS31	Paul Soto	Seats (Total: 15)
	Meets August 28, 2023 - October 16, 2023	
	Th 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BMSO758P **Special Topics in Business; Data Processing and Analysis in Python**

Selected advanced topics in the various fields of graduate study in business.

Cross-listed with BDBA808P. Credit only granted for BMSO758P or BDBA808P.

MS21	John Bono	Seats (Total: 25)
	Meets August 28, 2023 - December 15, 2023	
	W 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BMSO758V **Special Topics in Business; Data Visualization**

Selected advanced topics in the various fields of graduate study in business.

MS21	Bharti Motwani	Seats (Total: 25)
	Meets August 28, 2023 - December 15, 2023	
	M 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BMSO778A **Special Topics in Business; Introduction to Accounting**

Selected advanced topics in the various fields of graduate study in business.

WM01	Progyan Basu	Seats (Total: 30)
	Meets August 28, 2023 - October 13, 2023	
	Class time/details on ELMs	ONLINE

BMSO778D **Special Topics in Business; Data Driven Decision Making**

Selected advanced topics in the various fields of graduate study in business.

WM01	Sujin Kim **Meets August 28, 2023 - October 13, 2023** Class time/details on ELMs	Seats (Total: 30) ONLINE

BMSO778F **Special Topics in Business; Financial Management**

Selected advanced topics in the various fields of graduate study in business.

WM01	Susan White **Meets October 23, 2023 - December 15, 2023** Class time/details on ELMs	Seats (Total: 30) ONLINE

BMSO778L **Special Topics in Business; Leadership and Teamwork**

Selected advanced topics in the various fields of graduate study in business.

WM01	Roy Thomason **Meets August 28, 2023 - October 13, 2023** Class time/details on ELMs	Seats (Total: 35) ONLINE

BMSO778M **Special Topics in Business; Marketing Management**

Selected advanced topics in the various fields of graduate study in business.

WM01	Mary Beth Furst **Meets October 23, 2023 - December 15, 2023** Class time/details on ELMs	Seats (Total: 30) ONLINE

BMSO778N **Special Topics in Business; Negotiation and Conflict Management**

Selected advanced topics in the various fields of graduate study in business.

WM01	Rellie Rozin **Meets August 28, 2023 - October 13, 2023** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BMSO778O **Special Topics in Business; Organizational Change**

Selected advanced topics in the various fields of graduate study in business.

WM01	Myeong-Gu Seo **Meets October 23, 2023 - December 15, 2023** Class time/details on ELMs	Seats (Total: 30) ONLINE	

BSCI Biological Sciences Program Fall 2023

BSCI126 **Pollinators in Crisis**

How are pollinators threatened by climate change, habitat destruction, and human interaction, and what are some ways to support and protect them? We will dissect the pollinator crisis, and in the process learn about insects, about the interaction of organisms in complex ecosystems, and about the human-nature interface. Students will work in groups that specialize in an aspect of pollinator biology and their challenges. Instruction will target methods for collecting information, interpretation of scientific information and the professional presentation of findings.

(Sponsoring Dept.: ENTM). Not acceptable for credit for any Biological Sciences major.

0101	David Hawthorne TuTh 2:00pm - 3:15pm Tu 3:30pm - 4:20pm	Seats (Total: 20) PLS 1140 PLS 1162	 Discussion
0102	David Hawthorne TuTh 2:00pm - 3:15pm Tu 4:30pm - 5:20pm	Seats (Total: 20) PLS 1140 PLS 1162	 Discussion
0103	David Hawthorne TuTh 2:00pm - 3:15pm Th 3:30pm - 4:20pm	Seats (Total: 20) PLS 1140 PLS 1162	 Discussion
0104	David Hawthorne TuTh 2:00pm - 3:15pm Th 4:30pm - 5:20pm	Seats (Total: 20) PLS 1140 PLS 1162	 Discussion

BSCI135 **Amazing Green: Plants that Transformed the World**

In what profound ways have plants changed humanity and the world we live in today? An interactive way to learn about plants and science, focusing on how plants have changed human history, the biology of their growth, and the science behind their use.

(Sponsoring Dept.: CBMG). Students must pay a $40.00 laboratory materials fee. Not acceptable for credit for any Biological Sciences major.

0101	Edgar Moctezuma TuTh 9:30am - 10:45am M 12:30pm - 2:30pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab

0102	Edgar Moctezuma TuTh 9:30am - 10:45am Tu 12:00pm - 2:00pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab
0103	Edgar Moctezuma TuTh 9:30am - 10:45am W 12:30pm - 2:30pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab
0104	Edgar Moctezuma TuTh 9:30am - 10:45am Th 12:30pm - 2:30pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab
0105	Edgar Moctezuma TuTh 9:30am - 10:45am W 3:00pm - 4:50pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab

BSCI151 **Beyond Race: Human Biological Diversity**

Credit only granted for: BSCI189I, BSCI150 or BSCI151. Formerly: BSCI150.

Do racial labels have any practical use in understanding human biological diversity? Such categorizations are inextricably linked to racism, including a history of misuse in science going back hundreds of years, yet modern biological research and medicine often include the use of race. At its core, addressing this question requires understanding the balance between genetic and non-genetic factors underlying human diversity. The course will help students make an informed critique of the biological basis of race through the study of topics such as: basic biology, data analysis and experimental design, human evolution and genetics, and biomedical research and health outcomes.

(Sponsoring Dept.: BIOL).

0101	Philip Johnson, Nicholas Fletcher, Kimberly Paczolt MWF 11:00am - 11:50am	Seats (Total: 150) BPS 1250	

BSCI160 **Principles of Ecology and Evolution**

Prerequisite: Must have math eligibility of MATH120 or higher. Recommended: For Science majors. Credit only granted for: BSCI106 or BSCI160. Formerly: BSCI106.

Basic principles of biology with special emphasis on ecological and evolutionary biology.

(Sponsoring Dept.: BSCI).

6101	Magdalene Ngeve TuTh 9:30am - 10:45am	Seats (Total: 130) ESJ 1202	

6201	Magdalene Ngeve TuTh 12:30pm - 1:45pm	Seats (Total: 130) ESJ 1202	
6301	Leo Shapiro TuTh 2:00pm - 3:15pm	Seats (Total: 130) ESJ 1202	
6401	Emily Bruns MWF 9:00am - 9:50am	Seats (Total: 60) HJP 2242	
6501	Marcia Shofner W 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 149) ONLINE ONLINE	

BSCI161 **Principles of Ecology and Evolution Lab**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI160. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on ecological and evolutionary biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

6104	Hans Lemke, Michael Keller M 11:00am - 1:50pm	Seats (Total: 24) HJP 3211	Lab
6105	Hans Lemke, Michael Keller M 11:00am - 1:50pm	Seats (Total: 24) HJP 3217	Lab
6110	Hans Lemke, Michael Keller M 5:00pm - 7:50pm	Seats (Total: 24) HJP 3211	Lab
6111	Michael Keller, Hans Lemke M 5:00pm - 7:50pm *This section is restricted to BioFire students.*	Seats (Total: 24) HJP 3217	Lab
6201	Hans Lemke, Michael Keller Tu 8:00am - 10:50am	Seats (Total: 24) HJP 3211	Lab
6204	Hans Lemke, Michael Keller Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 3211	Lab
6205	Hans Lemke, Michael Keller Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 3217	Lab

6211	Hans Lemke, Michael Keller Tu 5:00pm - 7:50pm	Seats (Total: 24) HJP 3217	Lab
6302	Hans Lemke, Michael Keller W 8:00am - 10:50am	Seats (Total: 24) HJP 3217	Lab
6304	Hans Lemke, Michael Keller W 11:00am - 1:50pm	Seats (Total: 24) HJP 3211	Lab
6305	Hans Lemke, Michael Keller W 11:00am - 1:50pm	Seats (Total: 24) HJP 3217	Lab
6307	Michael Keller, Hans Lemke W 2:00pm - 4:50pm *This section is restricted to BioFire students.*	Seats (Total: 24) HJP 3211	Lab
6311	Hans Lemke, Michael Keller W 5:00pm - 7:50pm	Seats (Total: 24) HJP 3217	Lab
6401	Hans Lemke, Michael Keller Th 8:00am - 10:50am	Seats (Total: 24) HJP 3211	Lab
6405	Hans Lemke, Michael Keller Th 11:00am - 1:50pm	Seats (Total: 24) HJP 3217	Lab
6408	Hans Lemke, Michael Keller Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 3217	Lab
6410	Hans Lemke, Michael Keller Th 6:00pm - 8:50pm	Seats (Total: 24) HJP 3211	Lab

BSCI161C **Principles of Ecology and Evolution Lab**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI160. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on ecological and evolutionary biology.

Restricted to new freshmen and new transfer students in Biological Science or Neuroscience. (Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

6108	Hans Lemke, Michael Keller M 2:00pm - 4:50pm	Seats (Total: 24) HJP 3217	Lab

6207	Hans Lemke, Michael Keller Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 3211	Lab
6210	Hans Lemke, Michael Keller Tu 5:00pm - 7:50pm	Seats (Total: 24) HJP 3211	Lab
6308	Hans Lemke, Michael Keller W 2:00pm - 4:50pm	Seats (Total: 24) HJP 3217	Lab
6404	Hans Lemke, Michael Keller Th 11:00am - 1:50pm	Seats (Total: 24) HJP 3211	Lab
6407	Hans Lemke, Michael Keller Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 3211	Lab

BSCI161S **Principles of Ecology and Evolution Lab**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI160. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on ecological and evolutionary biology.

Restricted to College Park Scholars - Life Sciences. (Sponsoring Dept.: BSCI). Students must pay a $40 laboratory materials fee.

6107	Hans Lemke, Michael Keller M 2:00pm - 4:50pm	Seats (Total: 24) HJP 3211	Lab
6208	Michael Keller, Hans Lemke Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 3217	Lab
6411	Hans Lemke, Michael Keller Th 5:00pm - 7:50pm	Seats (Total: 24) HJP 3217	Lab

BSCI170 **Principles of Molecular & Cellular Biology**

Prerequisite: Must have math eligibility of MATH120 or higher. Recommended: For Science majors. Credit only granted for: BSCI105 or BSCI170. Formerly: BSCI105.

Basic principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI).

0101	Swarna Mohan MWF 9:00am - 9:50am	Seats (Total: 121) ESJ 1224	

0201	Michael Keller MWF 11:00am - 11:50am	Seats (Total: 155) ESJ 2208	
0301	Michael Keller MWF 12:00pm - 12:50pm	Seats (Total: 155) ESJ 2208	
0401	Reid Compton TuTh 2:00pm - 3:15pm	Seats (Total: 138) ESJ 1224	
FC01	Michael Keller MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection*	Seats (Total: 115) ESJ 2208	
SEF1	James Sniezek Tu 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 50) PLS 1130	

BSCI171 **Principles of Molecular & Cellular Biology Laboratory**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI170. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

1021	Swarna Mohan M 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
1022	Swarna Mohan M 11:00am - 1:50pm	Seats (Total: 24) HJP 1226	Lab
1031	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab
1032	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
1033	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1235	Lab
1034	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1229	Lab

2021	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
2022	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1226	Lab
2023	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1235	Lab
2031	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab
2032	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
2033	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1235	Lab
3021	Swarna Mohan W 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
3022	Swarna Mohan W 11:00am - 1:50pm	Seats (Total: 24) HJP 1226	Lab
3031	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab
3032	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
3041	Swarna Mohan W 6:00pm - 8:50pm	Seats (Total: 24) HJP 1236	Lab
4021	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
4022	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) HJP 1226	Lab
4031	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab

4032	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
4041	Swarna Mohan Th 6:00pm - 8:50pm	Seats (Total: 18) HJP 1236	Lab
4043	Swarna Mohan Th 6:00pm - 8:50pm	Seats (Total: 9) HJP 1235	Lab
FC1M	Swarna Mohan M 6:00pm - 8:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 22) HJP 1236	Lab
FC1N	Swarna Mohan M 6:00pm - 8:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 22) HJP 1226	Lab
FC3N	Swarna Mohan W 6:00pm - 8:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 22) HJP 1226	Lab
FC5A	Swarna Mohan F 8:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 22) HJP 1236	Lab
FC5B	Swarna Mohan F 8:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 22) HJP 1226	Lab
SEF1	Swarna Mohan Th 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 15) HJP 1235	Lab
SEF2	Swarna Mohan Th 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 6) HJP 1236	Lab

BSCI201 **Human Anatomy and Physiology I**

Prerequisite: Minimum grade of C- in BSCI170; or students who have taken courses with comparable content may contact the CMNS-Biology department.

Anatomy and physiology of the skeletal, muscular, neural, endocrine, and sensory systems. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: BIOL). Students must pay a $40 laboratory materials fee.

0101	Caitlin Fox, Justicia Opoku-Edusei F 10:00am - 10:50am Class time/details on ELMs M 1:00pm - 3:50pm	Seats (Total: 24) ESJ 0202 ONLINE BPS 0205	Lab
0102	Caitlin Fox, Justicia Opoku-Edusei F 10:00am - 10:50am Class time/details on ELMs M 4:00pm - 6:50pm	Seats (Total: 24) ESJ 0202 ONLINE BPS 0205	Lab
0103	Caitlin Fox, Justicia Opoku-Edusei F 10:00am - 10:50am Class time/details on ELMs Tu 8:00am - 10:50am	Seats (Total: 24) ESJ 0202 ONLINE BPS 0205	Lab
0104	Caitlin Fox, Justicia Opoku-Edusei F 10:00am - 10:50am Class time/details on ELMs Tu 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 ONLINE BPS 0205	Lab
0105	Caitlin Fox, Justicia Opoku-Edusei F 10:00am - 10:50am Class time/details on ELMs Tu 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0202 ONLINE BPS 0205	Lab
0106	Justicia Opoku-Edusei, Caitlin Fox F 10:00am - 10:50am Class time/details on ELMs W 4:00pm - 6:50pm	Seats (Total: 24) ESJ 0202 ONLINE BPS 0205	Lab
0107	Justicia Opoku-Edusei, Caitlin Fox F 10:00am - 10:50am Class time/details on ELMs W 7:00pm - 9:50pm	Seats (Total: 24) ESJ 0202 ONLINE BPS 0205	Lab

0108	Justicia Opoku-Edusei, Caitlin Fox F 10:00am - 10:50am Class time/details on ELMs Th 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 ONLINE BPS 0205	 Lab
0110	Caitlin Fox, Justicia Opoku-Edusei F 10:00am - 10:50am Class time/details on ELMs M 4:00pm - 6:50pm	Seats (Total: 24) ESJ 0202 ONLINE BPS 0275	 Lab
0111	Caitlin Fox, Justicia Opoku-Edusei F 10:00am - 10:50am Class time/details on ELMs Tu 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 ONLINE BPS 0275	 Lab
0112	Justicia Opoku-Edusei, Caitlin Fox F 10:00am - 10:50am Class time/details on ELMs Tu 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0202 ONLINE BPS 0275	 Lab
1101	Caitlin Fox, Maira Goytia TuTh 12:30pm - 1:45pm M 9:00am - 11:50am	Seats (Total: 24) BRB 1101 BPS 0205	 Lab
1102	Maira Goytia, Caitlin Fox TuTh 12:30pm - 1:45pm M 7:00pm - 9:50pm	Seats (Total: 24) BRB 1101 BPS 0205	 Lab
1103	Maira Goytia, Caitlin Fox TuTh 12:30pm - 1:45pm Tu 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0205	 Lab
1104	Maira Goytia, Caitlin Fox TuTh 12:30pm - 1:45pm W 9:00am - 11:50am	Seats (Total: 24) BRB 1101 BPS 0205	 Lab
1105	Maira Goytia, Caitlin Fox TuTh 12:30pm - 1:45pm W 1:00pm - 3:50pm	Seats (Total: 24) BRB 1101 BPS 0205	 Lab

1106	Maira Goytia, Caitlin Fox TuTh 12:30pm - 1:45pm Th 8:00am - 10:50am	Seats (Total: 24) BRB 1101 BPS 0205	 Lab
1107	Caitlin Fox, Maira Goytia TuTh 12:30pm - 1:45pm Th 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0205	 Lab
1109	Caitlin Fox, Maira Goytia TuTh 12:30pm - 1:45pm M 7:00pm - 9:50pm	Seats (Total: 24) BRB 1101 BPS 0275	 Lab
1110	Maira Goytia, Caitlin Fox TuTh 12:30pm - 1:45pm Tu 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0275	 Lab
SEF1	Nelson Bennett, Caitlin Fox Tu 6:00pm - 8:50pm Th 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 24) PLS 1119 BPS 0205	 Lab

BSCI202 **Human Anatomy and Physiology II**

Prerequisite: Minimum grade of C- in BSCI201; or students who have taken courses with comparable content may contact the CMNS-Biology department.

Anatomy and physiology of the cardiovascular, respiratory, immune, digestive, urinary and reproductive systems. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: BIOL). Students must pay a $40.00 laboratory materials fee.

0101	Tammatha O'Brien, Caitlin Fox TuTh 8:00am - 9:15am M 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0109	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am W 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0110	Tammatha O'Brien, Caitlin Fox TuTh 8:00am - 9:15am W 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab

0112	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am Th 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0113	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 0224 BPS 0275	 Lab
1101	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am M 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
1105	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am W 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
1106	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am Th 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
1107	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am Th 1:00pm - 3:50pm	Seats (Total: 24) ESJ 0224 BPS 0275	 Lab
1108	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am Th 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab

BSCI207 **Principles of Biology III - Organismal Biology**

Prerequisite: BSCI160 and BSCI161; or BSCI106. And BSCI170 and BSCI171; or BSCI105. And must have completed or be concurrently enrolled in CHEM131.

The diversity, structure and function of organisms as understood from the perspective of their common physicochemical principles and unique evolutionary histories.

(Sponsoring Dept.: BSCI).

0101	Karen Carleton MWF 9:00am - 9:50am	Seats (Total: 150) ESJ 2204	
0201	Nicholas Fletcher MWF 2:00pm - 2:50pm	Seats (Total: 150) ESJ 2204	

0301	Nicholas Fletcher MWF 3:00pm - 3:50pm	Seats (Total: 150) ESJ 2204	

BSCI222 **Principles of Genetics**

Prerequisite: CHEM131 and CHEM132; and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Or must have completed BSCI105 or (BSCI170 and BSCI171); and two semesters of chemistry.

Principles and mechanisms of heredity and gene expression. Considers plant, animal, and microbial organisms.

(Sponsoring Dept.: BSCI).

2121	Kimberly Paczolt MWF 1:00pm - 1:50pm W 10:00am - 11:50am	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
2122	Kimberly Paczolt MWF 1:00pm - 1:50pm Th 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
2124	Kimberly Paczolt MWF 1:00pm - 1:50pm Tu 10:00am - 11:50am	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
2125	Kimberly Paczolt MWF 1:00pm - 1:50pm Tu 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
2130	Kimberly Paczolt MWF 1:00pm - 1:50pm W 3:00pm - 4:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
2132	Kimberly Paczolt MWF 1:00pm - 1:50pm W 5:00pm - 6:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
2141	Kimberly Paczolt MWF 1:00pm - 1:50pm Th 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 PLS 1121	Discussion

2211	Thomas Kocher TuTh 11:00am - 12:15pm W 2:00pm - 3:50pm	Seats (Total: 25) SKN 0200 BPS 1232	Discussion
2221	Thomas Kocher TuTh 11:00am - 12:15pm Tu 4:00pm - 5:50pm	Seats (Total: 24) SKN 0200 ATL 2316	Discussion
2231	Thomas Kocher TuTh 11:00am - 12:15pm Tu 6:00pm - 7:50pm	Seats (Total: 23) SKN 0200 PLS 1162	Discussion
2251	Thomas Kocher TuTh 11:00am - 12:15pm W 12:00pm - 1:50pm	Seats (Total: 24) SKN 0200 ATL 0201	Discussion
2261	Thomas Kocher TuTh 11:00am - 12:15pm W 6:00pm - 7:50pm	Seats (Total: 23) SKN 0200 PLS 1164	Discussion
2264	Thomas Kocher TuTh 11:00am - 12:15pm Th 8:00am - 9:50am	Seats (Total: 25) SKN 0200 BPS 1234	Discussion
2265	Thomas Kocher TuTh 11:00am - 12:15pm Th 2:00pm - 3:50pm	Seats (Total: 25) SKN 0200 HBK 0105	Discussion
2267	Thomas Kocher TuTh 11:00am - 12:15pm Th 4:00pm - 5:50pm	Seats (Total: 25) SKN 0200 PLS 1115	Discussion

BSCI223 **General Microbiology**

Prerequisite: BSCI170 and BSCI171; or BSCI105. Credit only granted for: BSCI223 or BSCI283.

How have microorganisms exploited every conceivable ecological niche, and how have humans harnessed this diversity to improve medicine, agriculture, and biotechnology? The course covers fundamental concepts in morphology, physiology, genetics, immunology, ecology, and pathogenic microbiology. Applications of microbiology to medicine, the food industry, and biotechnology.

(Sponsoring Dept.: CBMG). Students must pay a $40.00 laboratory materials fee.

1101	Erin Tran TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1106	Erin Tran TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1121	Erin Tran TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1126	Erin Tran TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1201	Erin Tran TuTh 11:00am - 11:50am MW 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1206	Erin Tran TuTh 11:00am - 11:50am MW 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1221	Erin Tran TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1225	Erin Tran TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1205	Lab
1301	Erin Tran TuTh 11:00am - 11:50am MW 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1306	Erin Tran TuTh 11:00am - 11:50am MW 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab

1321	Erin Tran TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1201	 Lab
1325	Erin Tran TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1205	 Lab
1326	Erin Tran TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1206	 Lab
1401	Erin Tran TuTh 11:00am - 11:50am MW 4:00pm - 5:50pm	Seats (Total: 20) BRB 1101 MCB 1201	 Lab
1406	Erin Tran TuTh 11:00am - 11:50am MW 4:00pm - 5:50pm	Seats (Total: 20) BRB 1101 MCB 1206	 Lab
2105	Erin Tran TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1205	 Lab
2125	Erin Tran TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1205	 Lab
2226	Erin Tran TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1206	 Lab
SEF1	Cherisse Hall TuTh 6:00pm - 6:50pm TuTh 7:00pm - 9:00pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 20) MCB 1207 MCB 1201	 Lab

BSCI279 **Supplemental Study; Supplemental Study in Biology**

(Perm req)

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI279P **Supplemental Study; Undergraduate Teaching Fellows Professional Development Seminar**

(Perm req)

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Prerequisite: permission of department.

Contact department for information to register for this course.

BSCI279Q **Supplemental Study; Readings in Neurophysiology**

(Perm req)

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: BIOL).

0101	Colenso Speer	Seats (Total: 13)
	Contact instructor or department for details.	

BSCI279R **Supplemental Study; Undergraduate Research Rotation**

(Perm req)

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: CBMG).

Contact department for information to register for this course.

BSCI279T **Supplemental Study; BSCI Learning Assistants**

(Perm req)

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Contact department for information to register for this course.

BSCI279W **Supplemental Study; Problem Solving for Molecular Courses**

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

"A Feeling for the Molecule and how biologists can approach and appreciate molecular thinking. This is a supplemental study course for introductory organic chemistry to support biology majors; we will develop strategies for problem-solving that will be useful for other upper-level biological science courses.

0101	Louisa Wu Tu 3:30pm - 5:00pm	Seats (Total: 20) Location: TBA	

BSCI283 **Principles of Microbiology**

Prerequisite: BSCI222. Restriction: Must be in a major within Biological Sciences; or permission of CMNS-Cell Biology & Molecular Genetics. Credit only granted for: BSCI223 or BSCI283. Additional information: Priority given to BSCI, BCHM and CHEM majors.

What makes microorganisms genetically, physiologically, and biochemically unique among organisms in the tree of life? An introduction to microorganisms designed for science majors. Genetic principles underlying microbial abilities; microbial structure-function relationships; metabolism, physiology, and ecology of microorganisms; interactions between microorganisms (including pathogens) and their hosts.

(Sponsoring Dept.: CBMG). Students must pay a $40.00 laboratory materials fee.

1205	Daniel Stein, Kevin McIver MW 10:00am - 10:50am MW 12:00pm - 1:50pm	Seats (Total: 20) ESJ 1309 MCB 1205	 Lab
1305	Kevin McIver, Daniel Stein MW 10:00am - 10:50am MW 2:00pm - 3:50pm	Seats (Total: 20) ESJ 1309 MCB 1205	 Lab

BSCI289 **Off-Campus Internship**

(Perm req)

Elective credit for formally established off-campus research internship. Permission of Director of Outreach required.

(Sponsoring Dept.: BSCI). Provides credit for off-campus research internships. This credit counts as elective toward graduation, but does not satisfy any Biological Sciences degree requirements (For information about research credit that does count toward Biological Sciences contact the Biological Sciences Program, room 1322 Symons Hall). The off-campus internship credit requires that a contract form be filed with the Assistant Dean for Science Education Initiatives, Room 1313 Symons Hall, prior to the internship. The contract must be finalized and signed by the research supervisor at the end of the semester before credit will be awarded.

1110	Katerina Thompson Contact instructor or department for details.	Seats (Total: 20)
1111	Katerina Thompson Contact instructor or department for details.	Seats (Total: 40)

BSCI300 **Strategies for Success**

Restriction: Must be in a major in USG-Universities at Shady Grove; and must be in Biological Sciences: Physiology & Neurobiology program. Credit only granted for: BSCI300 or BSCI339R. Formerly: BSCI339R.

Students often face an increased emphasis on critical thinking, pressure from a typically higher credit hour load, and a faster pace of exposure to new material when moving from lower- to upper-level coursework. The Biological Sciences program designed this course to help all transfer students make successful transitions, both academically and socially, to the University of Maryland at Shady Grove.

ESG1	Annie Foster Ahmed, Tracy Odim F 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 50) BLD4 3321 ONLINE
	Registration is restricted to Biological Sciences - Shady Grove majors.	

BSCI329 **Instructional Assistance Practicum**

(Perm req)

Students serve as instructional assistants in selected undergraduate biology courses. Roles and responsibilities are determined on a course- specific basis and approved by the College Undergraduate Program Committee.

Prerequiste: permission of department. (Sponsoring Dept.: BIOL). Credit cannot be applied to the requirements of any Biological Sciences Major.

1016	Hilary Bierman Contact instructor or department for details.	Seats (Total: 10)
1020	Gerald Borgia Contact instructor or department for details.	Seats (Total: 5)
1033	Chan Lin Contact instructor or department for details.	Seats (Total: 10)
1250	Justicia Opoku-Edusei Contact instructor or department for details.	Seats (Total: 20)
ESG1	Hadiya Woodham Contact instructor or department for details.	Seats (Total: 8)
	Registration is restricted to Biological Sciences - Shady Grove majors.	

BSCI330 **Cell Biology and Physiology**

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132. And minimum grade of C- in BSCI170 and BSCI171; or minimum grade of C- in BSCI105. Restriction: Must not have completed BSCI230. Credit only granted for: BSCI230 or BSCI330. Formerly: BSCI230.

Biochemical and physiological mechanisms underlying cellular function. Properties of cells which make life possible and mechanisms by which cells provide energy, reproduce, and regulate and integrate with each other and their environment.

(Sponsoring Dept.: BIOL). Specialization Areas: PHNB, CEBG, MICB, ECEV, and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Corine Van der Weele, Kenneth Frauwirth MWF 10:00am - 10:50am M 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0102	Kenneth Frauwirth, Corine Van der Weele MWF 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0104	Corine Van der Weele, Kenneth Frauwirth MWF 10:00am - 10:50am Tu 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0105	Kenneth Frauwirth, Corine Van der Weele MWF 10:00am - 10:50am W 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0108	Kenneth Frauwirth, Corine Van der Weele MWF 10:00am - 10:50am Th 8:00am - 10:50am	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0109	Kenneth Frauwirth, Corine Van der Weele MWF 10:00am - 10:50am Th 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0111	Kenneth Frauwirth, Corine Van der Weele MWF 10:00am - 10:50am M 6:00pm - 8:50pm	Seats (Total: 23) BRB 1101 BPS 0207	Lab
0114	Kenneth Frauwirth, Corine Van der Weele MWF 10:00am - 10:50am Th 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0116	Kenneth Frauwirth, Corine Van der Weele MWF 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab

1101	Corine Van der Weele, Kenneth Frauwirth TuTh 2:00pm - 3:15pm M 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1102	Corine Van der Weele, Kenneth Frauwirth TuTh 2:00pm - 3:15pm M 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1103	Corine Van der Weele, Kenneth Frauwirth TuTh 2:00pm - 3:15pm Tu 8:30am - 11:20am	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1104	Kenneth Frauwirth, Corine Van der Weele TuTh 2:00pm - 3:15pm Th 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1105	Corine Van der Weele, Kenneth Frauwirth TuTh 2:00pm - 3:15pm W 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1106	Kenneth Frauwirth, Corine Van der Weele TuTh 2:00pm - 3:15pm W 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1107	Corine Van der Weele, Kenneth Frauwirth TuTh 2:00pm - 3:15pm M 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1108	Kenneth Frauwirth, Corine Van der Weele TuTh 2:00pm - 3:15pm Th 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1109	Corine Van der Weele, Kenneth Frauwirth TuTh 2:00pm - 3:15pm Tu 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1110	Kenneth Frauwirth, Corine Van der Weele TuTh 2:00pm - 3:15pm W 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0224 BPS 0207	 Lab

ESG1	Nidhi Verma, Hadiya Woodham W 12:30pm - 1:45pm Class time/details on ELMs M 2:00pm - 5:00pm *Registration is restricted to Biological Sciences-Shady Grove majors.*	Seats (Total: 24) BLD4 4321 ONLINE BLD4 3322	 Lab
ESG2	Hadiya Woodham, Nidhi Verma W 12:30pm - 1:45pm Class time/details on ELMs W 2:00pm - 5:00pm *Registration is restricted to Biological Sciences-Shady Grove majors.*	Seats (Total: 24) BLD4 4321 ONLINE BLD4 3322	 Lab
SEF1	Corine Van der Weele, Elizabeth Read-Connole Tu 6:00pm - 8:50pm Th 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 24) BPS 1232 BPS 0207	 Lab

BSCI330H **Cell Biology and Physiology**

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132. And minimum grade of C- in BSCI170 and BSCI171; or minimum grade of C- in BSCI105. Restriction: Must not have completed BSCI230. Credit only granted for: BSCI230 or BSCI330. Formerly: BSCI230.

Biochemical and physiological mechanisms underlying cellular function. Properties of cells which make life possible and mechanisms by which cells provide energy, reproduce, and regulate and integrate with each other and their environment.

(Sponsoring Dept.: BIOL). Specialization Areas: PHNB, CEBG, MICB, ECEV and GENB. Restricted to students in the Integrated Life Science Honors program or permission of the instructor. Students must pay a $40.00 laboratory materials fee.

0101	Sabrina Kramer, Corine Van der Weele MWF 11:00am - 11:50am Tu 2:00pm - 4:50pm	Seats (Total: 24) TWS 0310 BPS 0213	 Lab
0102	Corine Van der Weele, Sabrina Kramer MWF 11:00am - 11:50am W 2:00pm - 4:50pm	Seats (Total: 24) TWS 0310 BPS 0207	 Lab
0103	Sabrina Kramer, Corine Van der Weele MWF 11:00am - 11:50am W 6:00pm - 8:50pm	Seats (Total: 24) TWS 0310 BPS 0213	 Lab

BSCI338B **Special Topics in Biology; Marine Biology**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

Prerequisite: BSCI160. (Sponsoring Dept: BIOL). Acceptable towards Biological Sciences Specialization Areas: GENB and ECEV.

0101	Marjorie Reaka	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	BPS 1238

BSCI338D **Special Topics in Biology; Complexity of Cancer**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338I **Special Topics in Biology; Medical Biotechnology & Drug Development**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338J **Special Topics in Biology; Medical Exploration of HIV/AIDS**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338M **Special Topics in Biology; Human Health and Disease: A Clinical Approach**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338N **Special Topics in Biology; Hormones and Behavior**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

Prerequisite: C- or better in BSCI330, NEUR200, or PSYC202. (Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV, GENB (Cell Biology category), and PHNB. Cross-listing with PSYC489G. Credit only granted for BSCI338N or PSYC489G. A comprehensive overview of the field of behavioral endocrinology, the study of the relationship between hormones and behavior, from a psychobiological perspective. Examine the major mammalian endocrine systems, how hormones influence sex determination, how hormones underlie sex differences in brain structure and function, the role of hormones in parental and social behaviors, mood disorders, homeostasis, cognition, and stress. Both normal and abnormal hormonal pathologies will be discussed. Due to the physiological and experimental perspectives, much of the phenomenology will be based on research in species other than humans. This species comparative approach will reveal interesting "ways of doing things" that are intriguingly different from how "humans do things."

0101	Mary Ann Rankin	Seats (Total: 35)
	TuTh 3:30pm - 4:45pm	PLS 1119

BSCI338Z **Special Topics in Biology; Field Research**

(Perm req)

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept: BIOL). Cannot be used as credit toward the major requirements for any Biological Sciences major. Contact the Biology Department Undergraduate Office for course information.

Contact department for information to register for this course.

BSCI339C **Selected Topics in Biology; Cell Biology Lab**

(Perm req)

Lectures, seminars, and other selected instruction courses in various biological subject matter.

Prerequisites: BSCI420. Credit will be granted for BSCI339C or BSCI421. (Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: PHNB, CEBG, and GENB. Students must pay a $40.00 laboratory materials fee.

Contact department for information to register for this course.

BSCI339R **Selected Topics in Biology; Evolution of Aging**

Lectures, seminars, and other selected instruction courses in various biological subject matter.

Prerequisites: C- or better in BSCI370. (Sponsoring Dept: BIOL). Credit only granted for BSCI339R and BIOL708A. Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Additional Courses Category). Discuss alternative reasons for why animals age at different rates. Weekly meetings will be student-led discussions of classic and recent literature. Topics will include, but are not limited to, evolutionary theories of aging, biomarkers of aging, sex differences in aging, experimental manipulations that alter lifespan in model and nonmodel organisms, and the interactions between the immune system and aging.

0101	Danielle Adams, Gerald Wilkinson	Seats (Total: 10)
	W 4:00pm - 4:50pm	BPS 1208

BSCI339Z **Selected Topics in Biology; Cell Death and Cancer Research Seminar**

(Perm req)

Lectures, seminars, and other selected instruction courses in various biological subject matter.

Credit cannot be applied to the requirements of any Biological Sciences Major.

ESG1	Hadiya Woodham	Seats (Total: 6)
	Th 2:00pm - 5:00pm	BLD4 3322
	Registration is restricted to Biological Sciences - Shady Grove majors.	

BSCI348 **Special Topics in Cell Biology and Molecular Genetics**

(Perm req)

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

(Sponsoring Dept.: CBMG). May be repeated, but only 3 credits may be applied to major requirements.

Contact department for information to register for this course.

BSCI348A **Special Topics in Cell Biology and Molecular Genetics; Microbiology Undergraduate Teaching Practicum**

(Perm req)

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

(Sponsoring Dept.: CBMG). Students will act as Undergraduate Teaching Assistants for BSCI223. Prerequisite: A or B in BSCI223 and permission of instructor. Students must be available for one of the BSCI223 lab periods. Students interested in this teaching/leadership opportunity should contact Dr. John Buchner for application information: This course is applicable for the Enrichment credits required of all Biological Sciences students in majors with 0404 codes. For others this is elective credit. Formerly: BSCI348U.

0101	John Buchner	Seats (Total: 25)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

BSCI348R **Special Topics in Cell Biology and Molecular Genetics; Microbiology Internship**

(Perm req)

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

(Sponsoring Dept.: CBMG). This course is an opportunity for students interested in microbiology to pursue a research project in an off-campus lab. The student must see the instructor and complete an information sheet found on the web site, prior to enrolling in the course.

0101	David Straney Contact instructor or department for details.	Seats (Total: 8)	

BSCI353 **Principles of Neuroscience**

Prerequisite: Earning C- or higher in NEUR200 or BSCI330. Corequisite: Must have completed or be concurrently enrolled in PHYS132 or equivalent course. Cross-listed with: NEUR306. Credit only granted for: NEUR306 or BSCI353.

Students will gain an appreciation of neuroscience as the nexus of chemistry, physics, and biology. Additionally, they will gain an understanding of how: both individual and networks of neurons function as variable electrical circuits; our nervous systems transduce signals from the outside world and sets-off molecular cascades; the behavior of a neuron can be changed and or remain the same in response to changing variables. Techniques used to study the nervous system at a cellular and molecular level will be discussed.

(Sponsoring Dept.: BIOL). Acceptable toward Bilogical Sciences Specialization Areas: CEBG (Cell Biology), Development, Physiology), and PHNB.

0101	Chan Lin MWF 9:00am - 9:50am	Seats (Total: 50) BPS 1250	
0102	Melissa Caras TuTh 12:30pm - 1:45pm	Seats (Total: 50) PLS 1140	
SEF1	Chan Lin F 6:00pm - 9:00pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 25) CHE 2136	

BSCI360 **Principles of Animal Behavior**

Prerequisite: BSCI160 and BSCI161; or BSCI106. And BSCI170 and BSCI171; or BSCI105. And BSCI222.

Study of animal behavior with emphasis on its evolution and function. Topics include genetic basis of behavior, communication, aggression, foraging, cooperation, mate selection, and relevance for conservation.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV, GENB, and PHNB.

0101	Gerald Borgia MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) ONLINE PLS 1162	 Discussion

0102	Gerald Borgia MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) ONLINE PLS 1162	Discussion

BSCI361 **Principles of Ecology**

Prerequisite: BSCI160 and BSCI161; or BSCI106. And (MATH130, MATH136, or MATH140).

Basic principles of population, community, and ecosystem ecology. Use of these principles to predict possible consequences of human-caused changes in the environment and to understand the level of uncertainty of those predictions.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB.

0101	Sarah Lee TuTh 11:00am - 12:15pm W 2:00pm - 2:50pm	Seats (Total: 25) PLS 1140 PLS 1119	Discussion
0102	Sarah Lee TuTh 11:00am - 12:15pm W 3:00pm - 3:50pm	Seats (Total: 25) PLS 1140 PLS 1119	Discussion
0103	Sarah Lee TuTh 11:00am - 12:15pm W 4:00pm - 4:50pm	Seats (Total: 25) PLS 1140 PLS 1119	Discussion

BSCI363 **The Biology of Conservation and Extinction**

Prerequisite: Minimum grade of C- in BSCI361.

Ecology, evolutionary biology, and paleontology will be applied to the study of conservation, species invasions, and extinction.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Ecology, Behavior & Organismal).

0101	Sarah Lee MWF 11:00am - 11:50am	Seats (Total: 35) BPS 1238	

BSCI366 **Environmental Physiology of Animals**

Prerequisite: BSCI207.

Explores the physiological, morphological, ecological, and behavioral adaptations of aquatic and terrestrial animals that help them manage environmental challenges. The course considers both diverse adaptations among animal lineages and striking convergence among different animal lineages and systems, as well as the physical laws that drive this convergence. Impacts of climate change on the physiology and ecology of animals are highlighted across the course.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Ecology, Behavior & Organismal).

0101	Leo Shapiro	Seats (Total: 24)	
	MWF 12:00pm - 12:50pm	PLS 1115	

BSCI370 **Principles of Evolution**

Prerequisite: Minimum grade of C- in BSCI160, BSCI161, and BSCI222 .

Understanding evolutionary processes in a natural and human environment, including adaptation; DNA sequence, protein, and genome evolution; evolution of developmental mechanisms; mechanisms of evolutionary change (mutation, natural selection, drift); epidemiology; coevolution and biological control; speciation; comparative methods; extinction and conservation; human evolution.

(Sponsoring Dept.: BIOL) Applies to Biological Sciences Specialization Areas: PHNB, GENB, and ECEV.

0101	Carlos Machado	Seats (Total: 100)	
	TuTh 9:30am - 10:45am	PLS 1140	

BSCI374 **Mathematical Modeling in Biology**

Prerequisite: MATH131, MATH136, or MATH141. Cross-listed with: HLSC374. Credit only granted for: BSCI374, BSCI474, or HLSC374. Formerly: BSCI474. Additional information: The HLSC374 version of this course is restricted to students in the Honors College Integrated Life Sciences program.

Students will learn empowering mathematical techniques through the understanding of biological models. Models are chosen from a variety of biological disciplines. Mathematical skills that will be developed along the way include: solving non-linear difference equations, eigenvector analysis, and the implementation of these algorithms as computer models.

(Sponsoring Dept.: BIOL) Applies as an upper-level laboratory course to Biological Sciences Specialization Areas: CEBG, ECEV, GENB, and PHNB. Students must pay a $40.00 laboratory materials fee.

0101	Jonathan Simon	Seats (Total: 15)	
	TuTh 9:30am - 10:45am	CCC 1111	
	M 1:00pm - 3:50pm	CCC 1111	Lab

BSCI374H **Mathematical Modeling in Biology**

Prerequisite: MATH131, MATH136, or MATH141. Cross-listed with: HLSC374. Credit only granted for: BSCI374, BSCI474, or HLSC374. Formerly: BSCI474. Additional information: The HLSC374 version of this course is restricted to students in the Honors College Integrated Life Sciences program.

Students will learn empowering mathematical techniques through the understanding of biological models. Models are chosen from a variety of biological disciplines. Mathematical skills that will be developed along the way include: solving non-linear difference equations, eigenvector analysis, and the implementation of these algorithms as computer models.

(Sponsoring Dept.: BIOL) Applies as an upper-level laboratory course to Biological Sciences Specialization Areas: CEBG, ECEV, GENB, and PHNB. Students must pay a $40.00 laboratory materials fee.

0101	Jonathan Simon	Seats (Total: 5)	
	TuTh 9:30am - 10:45am	CCC 1111	
	M 1:00pm - 3:50pm	CCC 1111	Lab

BSCI378H **Cell Biology and Molecular Genetics Department Honors Seminar**

(Perm req)

Required seminar for all students participating in departmental honors research program.

(Sponsoring Dept.: CBMG). Restricted to students participating in the CBMG Departmental Honors Program. If you are interested in a CBMG Departmental Honors Research experience, please see the CBMG department web site for detailed information.

Click here for more course information.

0101	Louisa Wu	Seats (Total: 19)
	F 2:00pm - 2:50pm	HJP 1216

BSCI379G **Cell Biology and Molecular Genetics Department Research; Research in Cell Biology and Molecular Genetics**

(Perm req)

This course is arranged to provide qualified majors an opportunity to pursue research problems under the supervision of a faculty member of the department.

Prequisite: permission of department. See CBMG department Undergraduate office. (Sponsoring Dept: CBMG).

Contact department for information to register for this course.

BSCI379H **Cell Biology and Molecular Genetics Department Honors Research**

(Perm req)

Student should consult program guidelines. Research project carried out under guidance of faculty advisor.

Corequisite: BSCI378H. Restricted to students participating in the CBMG Departmental Honors Program. (Sponsoring Dept.: CBMG).

Click here for more course information.

Contact department for information to register for this course.

BSCI379L **Cell Biology and Molecular Genetics Department Research; Lab Research**

(Perm req)

This course is arranged to provide qualified majors an opportunity to pursue research problems under the supervision of a faculty member of the department.

Any combination of 3 credits of BSCI379G, BSCI379L, and BSCI379H can be used to satisfy the enrichment requirement in CEBG, ECEV, MICB, or PHNB or an upper-level elective in GENB. Students must have successfully completed at least one semester in a Cell Biology & Molecular Genetics department research lab before getting permission to take BSCI379L in the same lab. Students completing at least 4 credits of laboratory research including at least one semester taking BSCI379L may substitute this experience for one of the two upper-level laboratory courses required to complete any BSCI major.

Contact department for information to register for this course.

BSCI381 **Molecular Neuroethology**

Prerequisite: Minimum grade of C- in BSCI222; and minimum grade of C- in BSCI353 or NEUR306. Credit only granted for: BSCI339W, BSCI381, or BIOL709W. Formerly: BSCI339W.

The brain generates a tremendous variety of behaviors, but how it achieves these feats remains largely unknown. Genetics and molecular tools yield fundamental insights into how the brain senses its environment and determines an appropriate course of action. This course will describe modern genetic manipulations (eg, CRISPR editing) and neuronal interventions (e. g., optogenetics), and discuss the quantification of behavioral outputs. Course consists of lectures plus readings and group discussions of primary scientific literature.

(Sponsoring Dept.: BIOL). Acceptable towards Biological Sciences Specialization Areas: GENB (Genetics & Evolution), CEBG, and PHNB.

0101	Scott Juntti	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	BPS 0283

BSCI389 **Entomology Department Research**

(Perm req)

Credit to be determined by the department. A maximum of 8 credits of any version of BSCI389 can be applied to one or more undergraduate degrees. Any research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but not applied to any undergraduate degree.

(Sponsoring Dept.: ENTM).

Contact department for information to register for this course.

BSCI389H **Entomology Department Research; Honors Research**

(Perm req)

Credit to be determined by the department. A maximum of 8 credits of any version of BSCI389 can be applied to one or more undergraduate degrees. Any research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but not applied to any undergraduate degree.

(Sponsoring Dept.: ENTM).

Contact department for information to register for this course.

BSCI389L **Entomology Department Research; Lab Research**

Credit to be determined by the department. A maximum of 8 credits of any version of BSCI389 can be applied to one or more undergraduate degrees. Any research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but not applied to any undergraduate degree.

Contact department for information to register for this course.

BSCI398H **Biology Department Honors Seminar**

(Perm req)

Required seminar for all students participating in departmental honors research program.

(Sponsoring Dept. :BIOL).

0101	Alexandra Bely	Seats (Total: 35)
	M 4:00pm - 4:50pm	BPS 1208

BSCI399 **Biology Department Research; Biology Department Research**

(Perm req)

Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

(Sponsoring Dept: BIOL)

Contact department for information to register for this course.

BSCI399H **Biology Department Honors Research**

(Perm req)

A laboratory research problem; required each semester during honors participation and culminating in an honors thesis.

(Sponsoring Dept: BIOL).

Contact department for information to register for this course.

BSCI399L **Biology Department Research; Biology Lab Research**

(Perm req)

Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

Contact department for information to register for this course.

BSCI400 Animal Diversity and Evolution

Prerequisite: Minimum grade of C- in BSCI160 and BSCI207.

Focuses on deep-level diversity of animals and their evolutionary relationships, unique and repeated transitions in the course of animal evolution, and the evolutionary mechanisms that have shaped and continue to shape animal diversity. The course takes an integrative organismal approach to understanding animal evolution, considering morphology, development, physiology, life history, and ecology. It also explores how patterns of animal diversity have changed through time and the processes affecting animal diversity in our changing world.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Ecology, Behavioral & Organismal category).

0101	Alexandra Bely	Seats (Total: 35)
	MWF 11:00am - 11:50am	BPS 1236

BSCI404 Cell Biology from a Biophysical Perspective

Prerequisite: BSCI330. Recommended: PHYS121 and PHYS122; or completion of PHYS131 and PHYS132 recommended. Jointly offered with BIOL704, BIPH704. Credit only granted for: BSCI338O, BSCI404, BIOL704, BIOL708O, or BIPH704. Formerly: BSCI338O.

An approach to cell biology by focusing on mechanisms and unifying physical paradigms. It will not assume a great deal of factual biological knowledge, but will expect a background that prepares students to think mechanistically and quantitatively.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG (Cell Biology), GENB (Cell Biology, Development, Physiology), and PHNB.

0101	Sergei Sukharev	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	PLS 1113

BSCI405 Population and Evolutionary Genetics

Prerequisite: Minimum grade of C- in BSCI222; and 1 course with a minimum grade of C- from (MATH131, MATH136, MATH141). Jointly offered w ith BIOL709. Credit only granted for: BSCI405, BSCI339J, or BIOL709C. Formerly: BSCI339J.

Genetic variation within a population provides the basis for future evolution as well as a record of past evolution. The genomics revolution provides data on this variation that, together with mathematical models, allow us to read this record to reconstruct evolutionary trajectories. Examples will focus on hominin and pathogen evolution. In the lab, students will use models to explore how genetic variation (allele frequencies) changes over time and space.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG (Genetics), ECEV, and (Genetics & Evolution). Students must pay a $40.00 laboratory materials fee.

0101	Philip Johnson MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 20) HBK 0123 PLS 1121	 Lab

BSCI410 Molecular Genetics

Prerequisite: BSCI222. And must have completed CHEM233; or (CHEM231 and CHEM232).

An advanced genetics course emphasizing the molecular basis of gene structure and function in the context of modern approaches to the genetics of humans and model organisms.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences specialization areas: PHNB, CEBG, GENB and ECEV.

0101	Stephen Mount TuTh 11:00am - 12:15pm	Seats (Total: 140) BPS 1250	

BSCI411 Bioinformatics and Integrated Genomics

Prerequisite: Minimum grade of C- in BSCI222. Recommended: BSCI410. Credit only granted for: BSCI380 or BSCI411. Formerly: BSCI380.

Computational methods for the study of biological data. Pairwise and multiple sequence alignment, genome assembly and annotation, RNAseq analysis, and structural bioinformatics. Introduction to UNIX, Python, and R in the context of biological sequence data. Previous computational experience is not necessary.

(Sponsoring Dept.: CBMG). Acceptable to Biological Specialization Areas: CEBG, MICB, and GENB. Studets must pay a $40.00 Laboratory Materials fee.

0101	Brantley Hall, Brian Pierce MWF 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 25) MCB 1207 PLS 1121	 Lab
0102	Brian Pierce, Brantley Hall MWF 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 25) MCB 1207 PLS 1121	 Lab

BSCI411H Bioinformatics and Integrated Genomics

Prerequisite: Minimum grade of C- in BSCI222. Recommended: BSCI410. Credit only granted for: BSCI380 or BSCI411. Formerly: BSCI380.

Computational methods for the study of biological data. Pairwise and multiple sequence alignment, genome assembly and annotation, RNAseq analysis, and structural bioinformatics. Introduction to UNIX, Python, and R in the context of biological sequence data. Previous computational experience is not necessary.

(Sponsoring Dept.: CBMG). Acceptable to Biological Specialization Areas: CEBG, MICB, and GENB. Studets must pay a $40.00 Laboratory Materials fee.

0101	Brantley Hall, Brian Pierce MWF 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 25) MCB 1207 PLS 1121	 Lab
0102	Brantley Hall, Brian Pierce MWF 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 25) MCB 1207 PLS 1121	 Lab

BSCI414 Recombinant DNA Laboratory

Prerequisite: BSCI222.

An advanced course offering hands-on experience in performing recombinant DNA experiments. All current molecular biology techniques used for cloning prokaryotic genes, analyzing the gene products, and modifying the genes will be performed. Techniques include isolation of DNA, use of restriction enzymes; cloning procedures, PCR analysis, and Southern hybridizations. Lecture material focuses on interpretation of results generated in the laboratory.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences Specialization Areas: PHNB, MICB, CEBG and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Caren Chang TuTh 2:00pm - 5:00pm	Seats (Total: 18) MCB 1135	 Lab

BSCI415 Molecular Genetics Laboratory

Prerequisite: Must have completed or be concurrently enrolled in BSCI410. Restriction: Junior standing or higher. Credit only granted for: BSCI348G or BSCI415. Formerly: BSCI348G.

Problem solving laboratory organized around extended projects that employ different approaches toward linking gene and function.

(Sponsoring Dept.: CBMG). Specialization Areas: CEBG and GENB. Students must pay a $40.00 laboratory materials fee.

0101	David Straney TuTh 2:00pm - 5:00pm	Seats (Total: 20) MCB 3123	 Lab

BSCI416 Human Genetics

Prerequisite: Minimum grade of C- in BSCI410. Recommended: BSCI330.

Approaches to human genetics and applications to biology and medicine focusing on specific human genetic topics using primary research papers as the main resource.

(Sponsoring Dept.: CBMG).

Contact department for information to register for this course.

BSCI420 **Cell Biology Lectures**

Prerequisite: BSCI330, BSCI222, CHEM231, and CHEM232. Credit only granted for: BSCI420 or BSCI421.

Molecular and biochemical bases of cellular organization and function in eukaryotes.

(Sponsoring Dept: CBMG). Specialization Areas: PHNB, CEBG, and GENB. Cross-listed with BSCI420. Credit only granted for BSCI420 or CBMG688C.

0101	Norma Andrews	Seats (Total: 70)
	TuTh 12:30pm - 1:45pm	MCB 1207

BSCI422 **Principles of Immunology**

Prerequisite: BSCI222. Recommended: BSCI330; and (BSCI223 or BSCI283). Restriction: Junior standing or higher.

The immune system in health and disease. Presentation and analysis of the cellular and molecular processes that comprise the immune system.

ESG1	Gregory Simon	Seats (Total: 50)
	Tu 11:00am - 12:15pm	ONLINE
	Class time/details on ELMs	ONLINE
	Registration is restricted to Biological Sciences-Shady Grove majors.	
SEF1	Sandra Fox-Moon	Seats (Total: 12)
	W 6:00pm - 9:00pm	MCB 1207
	Must be in the Science in the Evening (SIE) program.	

BSCI424 **Pathogenic Microbiology**

Prerequisite: BSCI223 or BSCI283.

The role of bacteria and fungi in the diseases of humans with emphasis upon the differentiation and culture of microorganisms, types of disease, modes of disease transmission, prophylactic, therapeutic, and epidemiological aspects.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences Specialization Areas: MICB and GENB (Category 2). Students must pay a $40.00 laboratory materials fee.

0101	Volker Briken TuTh 11:00am - 11:50am MW 11:00am - 12:50pm	Seats (Total: 18) MCB 1207 MCB 1143	 Lab
0102	Volker Briken TuTh 11:00am - 11:50am MW 1:00pm - 2:50pm	Seats (Total: 18) MCB 1207 MCB 1143	 Lab

BSCI430 **Developmental Biology**

Prerequisite: BSCI222 and BSCI330.

Structural, functional and regulatory events and mechanisms that operate during development to produce an integrated, multicellular organism composed of a multitude of differentiated cell types.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG(Cell Biology), ECEV, GENB (Cell Biology, Development, Physiology) and PHNB.

0101	William Jeffery TuTh 2:00pm - 3:15pm	Seats (Total: 35) PLS 1130	

BSCI431 **The Origin and Evolution of Nervous Systems**

Prerequisite: Minimum grade of C- in NEUR200 or BSCI207.

Explore how brains change through evolution along the animal tree of life. By comparing the nervous system structure and development across the animal kingdom, this course aims to reveal common designs and mechanisms that generate behavior, and to inform our understanding of how biology builds minds. Topics include the origins of neurons, the universal molecular patterning of brain development across invertebrates and vertebrates, the evolution of neurotransmission, comparative mechanisms of learning and memory, and what in our brain makes us human.

0101	Chan Lin TuTh 2:00pm - 3:15pm	Seats (Total: 35) BPS 1236	

BSCI432 **Systems View of Cell Biology**

Prerequisite: BSCI330.

An integrated understanding of cell biology based upon reading of literature, discussion of new findings, and quantitative simulations. Exploration of ten topics including Heredity, Curing Diseases, and Synthesizing Life.

0101	Antony Jose TuTh 3:30pm - 4:45pm	Seats (Total: 30) ESJ B0320	

BSCI437 **General Virology**

Prerequisite: BSCI222; or permission of CMNS-Biological Sciences UG Program. Restriction: Junior standing or higher.

Discussion of the physical and chemical nature of viruses, virus cultivation and assay methods, virus replication, viral diseases with emphasis on the oncogenic viruses, viral genetics, and characteristics of the major virus groups.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences Specialization Areas: GENB, MICB and CEBG.

0101	Margaret Scull	Seats (Total: 60)
	MWF 11:00am - 11:50am	PLS 1130

BSCI443 **Microbial Physiology**

Prerequisite: Minimum grade of C- in BSCI223 or BSCI283; and minimum grade of C- in BCHM461 or BCHM462.

Microbial cellular and population growth. Fermentation metabolism, physiology of anaerobiosis, and energy conservation and transformation in bacterial membranes. Efficiency of energy utilization for growth. Membrane structure and transport. Bacterial motility and chemotaxis. Regulation of bacterial chromosome replication, RNA and protein synthesis. Control of metabolic pathways. Bacterial stress responses. Antimicrobials.

(Sponsoring Dept.: CBMG).

0101	Jiqiang Ling	Seats (Total: 50)
	TuTh 9:30am - 10:45am	TYD 1132

BSCI447 **General Endocrinology**

Prerequisite: BSCI330, CHEM241, and CHEM242.

Functions and dysfunctions of the endocrine system with special reference to mammals.

(Sponsoring DEPT.: BIOL). Specialization Areas: PHNB and GENB.

0101	Justicia Opoku-Edusei	Seats (Total: 70)
	F 12:00pm - 12:50pm	ESJ 0215
	Class time/details on ELMs	ONLINE

BSCI450 **Mammalian Systems Physiology**

Prerequisite: Minimum grade of C- in BSCI330; and minimum grade of C- in CHEM233 or both CHEM231 and CHEM232. Credit only granted for: BIOL708M, BSCI338L, BSCI440, or BSCI450.

A study of the cardiovascular, hemopoietic, gastrointestinal, renal, and respiratory systems. Chemical and endocrine regulation of physiological functions in mammals.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB and PHNB.

0101	Joshua Singer MWF 12:00pm - 12:50pm	Seats (Total: 120) BPS 1250	
0201	Colenso Speer MWF 10:00am - 10:50am	Seats (Total: 120) ESJ 1224	
ESG1	Lorin Milescu MW 12:30pm - 1:45pm *Registration is restricted to Biological Sciences-Shady Grove majors.*	Seats (Total: 50) BLD4 4335	

BSCI451 **Mammalian Systems Physiology Laboratory**

Prerequisite: Must have completed with a minimum of C- or be concurrently enrolled in either BSCI440 or BSCI450. Credit only granted for: BSCI441 or BSCI451. Formerly: BSCI441.

Laboratory exercises in experimental mammalian physiology.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB and PHNB. Students must pay a $40.00 $40.00 laboratory materials fee.

0101	Jonathan Schenk, Corine Van der Weele F 12:00pm - 12:50pm M 3:00pm - 6:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab
0102	Jonathan Schenk, Corine Van der Weele F 12:00pm - 12:50pm Tu 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab
0103	Jonathan Schenk, Corine Van der Weele F 12:00pm - 12:50pm W 3:00pm - 6:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab
0104	Jonathan Schenk, Corine Van der Weele F 12:00pm - 12:50pm Th 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab

BSCI455 **Neuroscience Laboratory**

Prerequisite: NEUR306 or BSCI353; and PHYS132. Recommended: NEUR305. Cross-listed with: NEUR405. Credit only granted for: PSYC401, NEUR405, BSCI455 or BSCI454.

Students will utilize neurophysiological techniques to examine fundamental principles of neurons and neural circuits. This course will reinforce content from prerequisite NEUR courses. Students will also strengthen skills in experimental design and scientific writing.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG (Cell Biology), GENB (Cell Biology, Development, Physiology), and PHNB. Students must pay a $40.00 laboratory materials fee.

0101	Hilary Bierman F 10:00am - 11:50am Th 2:00pm - 6:00pm	Seats (Total: 20) ESJ 1215 BPS 0257	 Lab
0102	Hilary Bierman F 10:00am - 11:50am Tu 2:00pm - 6:00pm	Seats (Total: 20) ESJ 1215 BPS 0257	 Lab
0103	Hilary Bierman F 10:00am - 11:50am W 1:00pm - 5:00pm	Seats (Total: 20) ESJ 1215 BPS 0257	 Lab

BSCI464 **Microbial Ecology**

Prerequisite: BSCI223 or BSCI283; and (CHEM271 or CHEM277); or permission of the instructor.

Interaction of microorganisms with the environment, other microorganisms and with higher organisms. Roles of microorganisms in the biosphere. Microorganisms and current environmental problems.

(Sponsoring Dept: CBMG).

0101	Charles Delwiche MWF 2:00pm - 2:50pm	Seats (Total: 25) MCB 2119	

BSCI467 **Freshwater Biology**

Prerequisite: BSCI160.

Biology and ecology of freshwater invertebrates in lotic and lentic habitats, their adaptation to aquatic life, their function in aquatic ecosystems, and their relationship to environmental deterioration. Laboratory will include field trips, demonstrations, and identifications.

(Sponsoring Dept.: ENTM). Specialization Areas: ECEV and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Bill Lamp MWF 1:00pm - 1:50pm W 2:00pm - 4:50pm	Seats (Total: 24) BPS 0283 PLS 1161	 Lab

0102	Bill Lamp	Seats (Total: 24)	
	MWF 1:00pm - 1:50pm	BPS 0283	
	Th 2:00pm - 4:50pm	PLS 1161	Lab

BSCI481 **Insect Diversity and Classification**

Prerequisite: BSCI337.

A summary of the morphology, systematics and evolution of insects and techniques for their collection, preservation and identification. Emphasis is placed on the diversity of insects in North America, particularly Maryland and adjacent regions. An insect collection is required.

Students must pay a $40.00 laboratory materials fee.

0101	Jeffrey Shultz	Seats (Total: 30)	
	F 10:00am - 10:50am	PLS 1117	
	M 10:00am - 1:00pm	PLS 1161	Lab
	W 10:00am - 1:00pm	PLS 1161	Lab

BSCI482 **Insect Physiology and Molecular Biology**

Prerequisite: BSCI337.

Physiological and biochemical functions of insects. Insect endocrinology, neurobiology, sensory physiology, integument and molting, development and metamorphosis, immunity, metabolism and related topics.

0101	Jian Wang	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	JMP 1202	
	Tu 2:00pm - 5:00pm	PLS 1161	Lab

BSCI483 **Insects, Pathogens, and Public Health**

Prerequisite: BSCI207.

Mosquito- and tick-borne disease transmission poses significant challenges to human health and well-being globally, and is on the rise in North America. Arthropod parasites and the pathogens they transmit to humans and animals will be introduced, and the public health significance of these arthropods will be examined. The ecology and behavior of vectors in relation to disease transmission will be emphasized.

(Sponsoring Dept.: ENTM). Acceptable toward Biological Specialization Areas: ECEV and GENB (Ecology, Behavior & Organismal category).

0101	Megan Fritz	Seats (Total: 24)	
	MW 9:00am - 9:50am	PLS 1130	
	F 9:00am - 9:50am	PLS 1161	Discussion

0102	Megan Fritz	Seats (Total: 24)	
	MW 9:00am - 9:50am	PLS 1130	
	F 10:00am - 10:50am	PLS 1161	Discussion

BSCI497 **Insect Pests of Ornamentals and Turf**

Prerequisite: BSCI160 or BSCI337; or (PLSC110 and PLSC111) or (PLSC112 and PLSC113).

The recognition, biology and management of insects and mites injurious to ornamental shrubs, trees, greenhouse crops, and turf. Emphasis on Integrated Pest Management (IPM).

0101	Karin Burghardt	Seats (Total: 24)	
	TuTh 9:30am - 10:45am	PLS 1146	
	F 2:00pm - 5:00pm	PLS 1161	Lab

BSCV CIVICUS Fall 2023

BSCV181 **Civicus Student and the University**

Restriction: Freshman standing; and must be in the Civicus program.

Knowledge and skills designed to utilize CIVICUS to enhance the college experience and preparation for civic engagement.

0101	Julie Randolph	Seats (Total: 25)
	Tu 2:00pm - 3:45pm	SOM 0101
0201	Julie Randolph	Seats (Total: 26)
	Tu 4:00pm - 5:45pm	SOM 0101

BSCV191 **Introduction to Civicus**

Restriction: Must be in the CIVICUS Program.

Students will explore a range of ways to think about what it means to fully engage in communities, conduct research and scholarly inquiry to explore pressing contemporary problems, consider the roots of social issues, and explore ways to create positive social change on a school, local, state, and national level.

0101	Korey Rothman	Seats (Total: 80)
	MW 4:15pm - 5:30pm	ESJ 2204

BSCV309 **Civicus Seminar**

(Perm req)

Review and analysis of contemporary social issues.

Contact department for information to register for this course.

BSCV328C **Common Ground Deliberative Dialogues; Civicus**

The Common Ground Multicultural Dialogue Program provides structured opportunities for students to engage in peer-led dialogues on compelling hot button topics that have important implications for our society. These topics often elicit strong opinions and have the potential to be divisive. A primary goal of the program is to equip students with the skills, experiences, and confidence to engage with others on difficult topics such as these. Participants drive the content of the dialogue by sharing their perspectives and ideas for addressing the topic, ultimately attempting to find areas of consensus among the group. By the end of the experience, participants should have a greater appreciation of the complexity of the topic and a better understanding of perspectives on the topic that differ from their own, building their capacity for empathy while still potentially disagreeing with certain ideas.

Restricted to Students in the CIVICUS Program.

0101	Nicole Mehta, Nikita Kimani **Meets August 28, 2023 - October 17, 2023** Tu 4:00pm - 6:00pm	Seats (Total: 18) Location: TBA
0201	Nikita Kimani, Nicole Mehta **Meets October 23, 2023 - December 11, 2023** W 4:00pm - 6:00pm	Seats (Total: 18) SOM 0101
0301	Nicole Mehta, Nikita Kimani **Meets October 23, 2023 - December 11, 2023** Th 4:00pm - 6:00pm	Seats (Total: 18) SOM 0101

BSOS Behavioral and Social Sciences Fall 2023

BSOS201 **Ensuring your Financial Future Through Stock Investing**

Credit only granted for: BSOS289I or BSOS201. Formerly: BSOS289I. Additional information: No prior knowledge of the stock market or investing is expected or required.

Introduces students to investing and trading, with special emphasis on the field of technical analysis. Planning for one's financial future is a critical skill for all students. Students will learn how to evaluate companies using the investors.com website and the TC2000 stock charting program. Students will develop an idea of the risks and benefits of investing, establishing a savings strategy, opening an IRA, and strategically planning for future financial security. In addition to readings, lectures, and online videos, students will participate in virtual stock market trading exercises and manage a virtual account.

FC01	Eric Wish, Amy Billing F 1:30pm - 4:30pm *Restricted to students in Freshmen Connection.*	Seats (Total: 139) ESJ 2208

BSOS233 **Data Science for the Social Sciences**

Prerequisite: MATH 107 (or higher) or STAT 100. Restriction: Must be in a major in the College of Behavioral and Social Sciences or the College of Information Studies; or permission of instructor.

An introduction to modern methods of data analysis for social scientists. This course emphasizes teaching students who have no previous coding experience how to analyze data and extract meaning in a social science context. Students will gain critical programming skills and learn inferential thinking through examples and projects with real-world relevance.

0101	Jacob Coutts TuTh 3:30pm - 4:45pm W 10:00am - 11:50am	Seats (Total: 20) ASY 1213 KEY 0125	 Discussion
0102	Jacob Coutts TuTh 3:30pm - 4:45pm W 2:00pm - 3:50pm	Seats (Total: 20) ASY 1213 EGR 0135	 Discussion

BSOS248A **Leadership Seminar I; Ambassadors**

(Perm req)

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

Contact department for information to register for this course.

BSOS248D **Leadership Seminar I; Dean's Student Advisory Council**

(Perm req)

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

Contact department for information to register for this course.

BSOS248P **Leadership Seminar I; Peer Mentor Seminar I**

(Perm req)

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

Contact department for information to register for this course.

BSOS258D **Leadership Practicum I; Dean's Student Advisory Council**

(Perm req)

This course puts into practice the elements and skills learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS258L **Leadership Practicum I; DSAC Officers**

(Perm req)

This course puts into practice the elements and skills learned in the seminar series that directly benefit the college.

Repeatable to 9 credits.

Contact department for information to register for this course.

BSOS258P **Leadership Practicum I; Peer Mentors**

(Perm req)

This course puts into practice the elements and skills learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS288I **Special Topics in Behavioral and Social Sciences; Internship Practicum in the Social Sciences**

(Perm req)

Introductory special topics course focusing on an interdisciplinary topic related to behavioral and social sciences.

Contact department for information to register for this course.

BSOS355 **Social Sciences Internship Practicum**

(Perm req)

Restriction: Must have earned a minimum of 60 credits; and minimum cumulative GPA of 2.5; and must have completed at least 1 semester at UMD. Credit only granted for: BSOS388I or BSOS355. Formerly: BSOS388I.

BSOS 355 is an internship course open to all majors. It will enable students to articulate and apply the scholarship from the discipline related to their specific internship placement into a real-work environment.

0101	Liza Lebrun	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

BSOS358A **Leadership Practicum II; Ambassadors**

(Perm req)

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS358P **Leadership Practicum II; Peer Mentors**

(Perm req)

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS361 **Academic and Career Planning for Transfer Students in the College of Behavioral and Social Sciences**

Restriction: Must be a first-semester transfer student in a College of Behavioral and Social Sciences major. Additional information: Intended for first semester transfer students in BSOS majors.

Students will utilize the resources of the Feller Center for Academic and Career Planning and TerrapinSTRONG to explore how their individual social identities and strengths contribute to building strong communities in personal, academic, and professional career spaces.

0101	Steven Young W 4:30pm - 5:45pm	Seats (Total: 30) BPS 1232
0102	Bailey Kier Th 3:30pm - 4:45pm	Seats (Total: 30) TYD 2109
0103	Stephanie Grissom Tu 3:30pm - 4:45pm	Seats (Total: 30) KEY 0126
0104	Felecia Greer, TC Lloyd M 2:00pm - 3:15pm	Seats (Total: 30) MOR 1101

BSOS386 **Experiential Learning**

(Perm req)

Contact department for information to register for this course.

BSOS388E **Behavioral and Social Sciences Special Topics; CIDCM Minor Practicum**

(Perm req)

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

0101	Breana Dinh Contact instructor or department for details.	Seats (Total: 30)

BSOS388F **Behavioral and Social Sciences Special Topics; Innovation in the Public Sector**

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Prerequisite: PSYC100, GVPT100 or ECON200. Cross-listed with GVPT388B. Credit will be granted for BSOS388F or GVPT 388B.

0101	Bradley Fallon, Kenneth Ulman	Seats (Total: 15)
	W 4:00pm - 6:30pm	CHI 2113

BSOS388Q **Behavioral and Social Sciences Special Topics; Cesar Directed Study**

(Perm req)

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Contact department for information to register for this course.

BSOS399 **Directed Study in Behavioral and Social Sciences**

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS399T **Directed Study in Behavioral and Social Sciences; Civicus Teaching Assistant**

(Perm req)

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS448A **Teaching Assistant Practicum; Fianancial Literacy Education**

(Perm req)

Supervised practicum for teaching assistants for BSOS/UNIV courses.

0101	Eric Wish, Amy Billing	Seats (Total: 15)
	Contact instructor or department for details.	

BSOS448C **Teaching Assistant Practicum; Civicus**

(Perm req)

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSOS448I **Teaching Assistant Practicum; Internship**

(Perm req)

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSOS448T **Teaching Assistant Practicum; (UNIV)**

(Perm req)

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSST Terrorism Studies Fall 2023

BSST240 **Understanding The Principles and Perils of CBRN Weapons**

Additional information: If taken in the same term as BSST241 these courses will count for General Education Natural Sciences Lab.

Explores the 'dark side' of scientific applications. Students will gain an understanding of CBRN Weapons, through the exploration of the scientific method, and certain fundamental principles of chemistry, biology, and physics. Students will also learn how to test hypotheses, use basic statistics, interpret results, and apply their new knowledge through discussions of practical applications in the domains of public health, emergency management, epidemiology, and threat assessment. Bringing these fields together in one class will allow students to better understand the use of and threat from CBRN weapons in terrorism.

FC01	Steve Sin	Seats (Total: 18)	
	TuTh 4:30pm - 5:45pm	SQH 2113	
	Restricted to students in Freshmen Connection.		

BSST241 **Understanding the Principles and Perils of CBRN Weapons (Lab)**

Corequisite: BSST240. Additional information: This is an optional 1-credit lab course offered in coordination with BSST240. If taken in the same term as BSST240 these courses will count for General Education Natural Sciences Lab.

An exploration of the threat of Chemical, Biological, Radiological, and Nuclear (CBRN) weapons aimed to provide students with a basic, multidisciplinary, natural science foundation in chemistry, biology, and physics.

Students must also be enrolled in BSST240: Understanding the Principles and Perils of CBRN Weapons

FC01	Steve Sin	Seats (Total: 18)	
	F 10:00am - 12:30pm	SQH 1117	Lab
	Restricted to students in Freshmen Connection.		

BSST330 **Terrorism Studies**

Credit only granted for: BSST330 or BSST200. Formerly: BSST330.

Theories explaining the formation of terrorist groups and the motivations behind terrorist behavior, building upon theories from social psychology, sociology, political science, criminology, and history. The course examines the different levels of analysis for terrorism studies, the different methods scholars utilize for research, and the most prominent datasets in the field of homeland security. In addition, this course provides a review of various terrorist groups and ideological movements. The course concludes with an introduction to the different approaches to counter violent extremism and terrorism.

0101	Thomas Guarrieri TuTh 11:00am - 12:15pm	Seats (Total: 40) CHE 2108	
	Restricted to students in the Global Terrorism Studies Minor(#BS07); for inquiries, email education-start@umd.edu.		
0201	Thomas Guarrieri TuTh 11:00am - 12:15pm	Seats (Total: 20) CHE 2108	
	Restricted to students in one of the following minors: International Development & Conflict Mgmt minor (#BS02), Global Poverty minor (#AG06),International Engineering minor (#EN01);or Global Engineering Leadership minor (#EN09); for inquiries, email education-start@umd.edu.		
0301	Thomas Guarrieri TuTh 11:00am - 12:15pm	Seats (Total: 20) CHE 2108	
	Open to all students. Registation by Departmental Permission Only. To enroll, email education-start@umd.edu.		

BSST334 **States of Emergency**

Students will explore the manner in which crises unfold from the perspective of a variety of emergency response disciplines, including: emergency management, law enforcement, intelligence analysis, cyber analysis, risk communication, health and human services, and emergency psychiatry/psychology. Students will participate in a semester-long simulation of an unfolding terrorist attack.

0101	Deanne Winslett, Robert Lamb Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 40) KEY 0106 ONLINE	 Discussion
0102	Deanne Winslett, Robert Lamb Tu 12:30pm - 1:45pm Th 2:00pm - 3:15pm	Seats (Total: 40) KEY 0106 ONLINE	 Discussion
0103	Robert Lamb, Deanne Winslett Tu 12:30pm - 1:45pm Th 3:30pm - 4:45pm	Seats (Total: 40) KEY 0106 ONLINE	 Discussion

BSST335 **Innovations in Countering Violent Extremism**

Credit only granted for: BSST335 or BSST338V. Formerly: BSST338V. Additional information: It is recommended that BSST335 be taken after, or concurrent with, BSST330.

Introduces students to novel innovations in the development of Countering Violent Extremism (CVE) programs. CVE is a realm of policy, programs, and interventions designed to prevent individuals from engaging in violence associated with radical political, social, cultural, and/or religious ideologies. Unlike counterterrorism strategies that often focus on targeting and disrupting terrorist plots, CVE focuses on radicalization prevention through engagement and intervention with communities. CVE also focuses on deradicalization and rehabilitation of former extremists. Throughout the course, students will work in groups to develop their own innovative CVE programs, rather than merely learn about CVE through lectures.

Restricted to Global Terrorism Minor students (#BS07).

0101	Amy Pate	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	ESJ 2309

BSST340 **Oral Communication for National Security Careers**

Credit only granted for: BSST340 or BSST338E. Formerly: BSST338E.

Students will discuss perspectives on strategic communication and national security, while discussing and practicing public speaking skills and developing proficiency in three genres of security-related briefings. Students will work with the technical, scientific, and/or specialized data, vocabularies, processes, and products of the academic disciplines and/or fields of expertise relevant to national and international security careers.

FC01	Holly Roberts	Seats (Total: 20)
	F 1:00pm - 4:00pm	EDU 3233
	Restricted to students in Freshmen Connection.	

BSST386 **Experiential Learning in Terrorism Studies**

(Perm req)

This course will supplement student's experiential learning experience, or internship in the field of terrorism studies and homeland security with guided reflection on their experiences.

0101	Eva Coll	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Registration by Departmental Permission Only	

BSST389 **Internship in Terrorism Studies**

Supplements student's experiential learning experience, or internship in the field of terrorism studies and homeland security, with guided reflection on their experiences.

Contact department for information to register for this course.

BSST630 **Motivations and Intents of Terrorists and Terrorist Groups**

Examines motivations for terrorism from an interdisciplinary perspective, with emphasis on political and applied social psychological perspective. Topics may include: defining terrorism; preconditions; recruitment; domestic and international terrorism; and case studies and analysis of terrorist organizations.

PWT1	Thomas Guarrieri	Seats (Total: 35)
	Tu 6:00pm - 8:30pm Class time/details on ELMs	ONLINE ONLINE

Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.

BSST634 Legal and Criminal Approaches to Counterterrorism

The United States and many of her allies have challenged long-standing legal boundaries in their effort to combat terrorism. This course examines these responses, including: increased criminalization of terrorism related activities; aggressive criminal prosecutions; detention of suspected terrorists indefinitely in far-off prisons; implementation of enhanced interrogation techniques; launch of drones to kill alleged terrorists, even U.S. citizens; and deployment of a vast system of mass surveillance.

PWT1	Jeffrey Davis	Seats (Total: 35)
	M 7:00pm - 8:30pm Class time/details on ELMs	ONLINE ONLINE

Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.

BSST635 Countering Violent Extremism: Policy and Practice

In recent years, the understanding of how and why individuals engage in violent extremism and terrorism has evolved and become more nuanced, as have the tools to mitigate these threats. A field of policy and practice called Countering Violent Extremism (CVE) has emerged that focuses on countering the pull of terrorist recruitment and influence by building resilience among populations vulnerable to radicalization.

PWT1	Samuel Henkin	Seats (Total: 30)
	Th 6:00pm - 8:30pm Class time/details on ELMs	ONLINE ONLINE

Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.

BSST639 Applied Analysis for Security Studies

Introduces students to novel approaches for applied research in security studies. Topics include simulations, wargaming exercises, red teaming, and horizon scanning. This course assumes no prior experience with these methods. Throughout the course, students will complete interactive strategy-based activities to understand the behavior of violent non-state actors and how to use applied methods to counter militant groups.

The purpose of this course is to introduce students to novel approaches for applied research in security studies. Topics include simulations, wargaming exercises, red teaming, and horizon scanning.

PWT1	Thomas Guarrieri	Seats (Total: 25)
	W 6:00pm - 8:30pm Class time/details on ELMs	ONLINE ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

BSST640 Theories of Security and Terrorism Studies

Additional information: Priority enrollment will be given to students in the MPS in Security and Terrorism Studies program.

Security and Terrorism Studies is a broad field that includes relevant theoretical voices from across the social sciences, philosophy, and policy. This course will mainly pull from sociological, psychological, and political science (international relations) theory to help students understand the theoretical foundation for the field and for their research. Specific topics may include discussion of power dynamics, ideology, violence, conflict, realist perspectives, and critical perspectives.

PWT1	Marcus Boyd	Seats (Total: 35)
	M 6:00pm - 8:30pm Class time/details on ELMs	ONLINE ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

BSST642 Analytic Methods

Development and mastery of analytic methods is vital for those seeking careers as professional analysts in fields related to security and terrorism studies. For students focused on an academic research career path, these skills will help you better interface with government and private sector consumers of your work. The overall goals for this course are to provide students with hands-on experience using analytic techniques to solve advanced problems. Classes will cover historical and current uses of analytic techniques and students will develop an understanding of which tools to use under different circumstances of analysis.

PWT1	Candace Moix	Seats (Total: 25)
	Th 6:00pm - 8:30pm Class time/details on ELMs	ONLINE ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

BSST697 **Capstone**

(Perm req)

Restriction: Students must be currently enrolled in their final semester of the MPTS program and have completed a minimum of 27 program credits.

The capstone course allows MPS students the ability to take what they have learned throughout their coursework and apply theories, methods, analysis, and policy in the form of a final project. The project can originate from work experience or the student's interests. Projects will be developed in conjunction with a member of the graduate faculty who will oversee the student's progress. By the end of the semester, each student is expected to have completed their individual project. The project should further the student's intellectual and career goals and can take the form of practical analysis, policy, or a more academic approach. Students will present their capstone project in written form and will also be required to present their research via an online colloquium. Students are expected to meet with a capstone advisor at least once a week and will devote considerable time developing the project individually.

PWT1	Thomas Guarrieri	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies. Registration by Departmental Permission Only. Email education-start@umd.edu for inquiries. Golden ID students are not eligible for this section.	

BUAC Accounting and Information Assurance Fall 2023

All BUAC courses are for MS in Accounting students unless otherwise noted.

BUAC707 **Financial Statement Analysis for Accountants and Auditors**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC780 or BUAC707. Formerly: BUAC780.

Provides students with the tools to conduct a financial statement analysis, which is part of an overall business analysis. This involves understanding and using the information that financial statements are communicating to users.

0501	Nick Seybert **Meets August 28, 2023 - October 16, 2023** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 1511

BUAC710 **Advanced Managerial Accounting and Control Systems**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC782 or BUAC710. Formerly: BUAC782.

Focuses on topics that emphasize the role of managerial accounting in a firm's overall management planning and control structure. A key concern is to show how effective organizations ensure that the parts of the organization work together to create the whole, and how the sum of the parts, through synergy, can indeed be greater then the whole.

0501	Darlene Dennison **Meets October 23, 2023 - December 15, 2023** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1528

BUAC712 **Business Communications for Accountants and Auditors**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC784 or BUAC712. Formerly: BUAC784.

Focuses on the art of communication and its effects on people, organizations, and other stakeholders. The course will focus on two aspects of business communications: persuasion and effective presentations. The objective for the persuasion sessions is to have students improve upon their day-to-day oral business communications skills. This will be accomplished as participants learn to tailor each communication to the person or people with whom they are speaking.

0501	Samuel Handwerger **Meets August 28, 2023 - October 16, 2023** MW 10:00am - 11:50am Contact instructor or department for details.	Seats (Total: 0) VMH 1528
0502	Samuel Handwerger **Meets August 28, 2023 - October 16, 2023** MW 8:00am - 9:50am Contact instructor or department for details.	Seats (Total: 0) VMH 1528

BUAC716 **Auditing Automation and Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

Auditing theory and the functions of the independent auditor in the financial market. As part of the class, the students will cover issues related to auditing large databases and audit analytics of large database. Moreover, the students will study audit automation and the use of artificial intelligence (AI) and Robotic process in the auditing market.

0501	James McKinney	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	MW 4:00pm - 5:50pm Contact instructor or department for details.	VMH 2505

BUAC721 **Business Law for Managers**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI764 or BUAC721.

Survey of United States legal institutions and processes as well as substantive areas of the law that affect business. Examination of tort and contract law, the legal forms of business organization and legal liability and major regulatory laws that affect business.

0501	Jon Crocker	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	TuTh 10:00am - 11:50am	VMH 2511

BUAC722 **Applied Research for Accounting and Auditing**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

Designed to give accounting masters students exposure to and appreciation of the various types of research that are undertaken by accounting and auditing professionals, including CPAs, financial analysts and academics. Accounting research will be studied as it relates to financial accounting standards, auditing standards, gaining understanding of a business and industry, and to a very limited extent tax and academic research. Students will gain experience working with professional accounting research databases as well as other databases that are useful for accounting research. Auditors and corporate preparers of financial statements need to know how to determine current GAAP and GAAS as they confront new issues and as standards evolve and change. Professionals need to understand how the standards are derived and how to analyze policy alternatives. Additionally, students will also explore the process of researching a business or industry in preparation for an audit.

0501	James McKinney	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	MW 4:00pm - 5:50pm	VMH 2505

BUAC731 **Intermediate Accounting I**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758L or BUAC731. Formerly: BUAC758L.

The first part of a three-series set of courses on intermediate accounting; presents an in-depth analysis of financial accounting and reporting theory and practice that will enhance student understanding of financial information used in making effective management decisions. For each topic included in the series, this course presents a review of the underlying business transactions that require accounting along with a review the technical details of U.S. Generally Accepted Accounting Principles (GAAP) and applicable International Financial Reporting Standards (IFRS). The course covers the informational needs of managers, securities analysts, investors and creditors, applicable to a variety of business transactions and events. The course includes materials helpful to students planning to take the CPA Examination. Intermediate Accounting I focuses on financial accounting standards, the conceptual framework of accounting, the accounting information system, the balance sheet, income statement, statement of cash flows, time value of money concepts and revenue recognition.

0501	Sean Cao	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	MW 2:00pm - 3:50pm	VMH 2505

BUAC740 **Data Driven Decision Making**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

Proficiency in the art of analyzing data to support decision-making is critical for business professionals. In this course, we will explore basic analytical principles that can assist a manager to extract information from raw data and model complex decision problems with quantitative methods. A good outcome does not necessary imply a good decision, a good outcome can be a matter of luck. A good decision is founded on sound reasoning and considers all the information available at the time of the decision.

0501	Tunay Tunca **Meets August 28, 2023 - October 16, 2023** MW 12:00pm - 1:50pm Contact instructor or department for details.	Seats (Total: 0) VMH 1511

BUAC756 **Informtion Security, Audit and Control**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC790 or BUAC756. Formerly: BUAC790.

Builds on basic information technology (IT) courses, focusing on key issues including IT security, IT controls, and IT auditing. Addressing issues such as auditing a computer information system; assessing risks; identifying control objectives; identifying appropriate audit procedures; learning the concepts and basic features or audit software thereby providing the tools for choosing audit software; conducting an operational audit basic controls over computer information systems; and developing world-class IT control frameworks.

0501	Stacey Ferris **Meets October 23, 2023 - December 15, 2023** MW 6:00pm - 7:50pm	Seats (Total: 0) VMH 1518

BUAC758A **Special Topics in Accounting and Information Assurance; Accounting for Income Tax and Database Management**

(Perm req)

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	Darian Harnish **Meets August 28, 2023 - October 16, 2023** MW 6:00pm - 7:50pm Contact instructor or department for details.	Seats (Total: 0) VMH 1518

BUAC758Q **Special Topics in Accounting and Information Assurance; Research on Accounting and Economic Cybersecurity**

(Perm req)

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	Lawrence Gordon	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	TuTh 10:00am - 11:50am	VMH 2511

BUAC758S **Special Topics in Accounting and Information Assurance; Systems for Data Analysis**

(Perm req)

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	Woei-jyh Lee	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	TuTh 12:00pm - 1:50pm	VMH 1511

BUAC759 **Independent Study in Accounting and Information Assurance**

(Perm req)

Independent study for masters students in accounting and information assurance.

Contact department for information to register for this course.

BUAC762 **Tax I: Taxation of Individuals & Forecasting Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Federal taxation of individuals focusing on income, exclusions, deductions, depreciation, credits and capital transactions including home ownership. Property coverage includes the tax consequences of sales and dispositions of personal use assets, investment and business assets. Both tax planning and compliance issues are also covered. In addition the course covers waged based and equity-based compensation, taxable and nontaxable benefits as well as deferred compensation and various retirement plans. In addition, students will learn how to utilize regression analysis and scenario analysis to provide additional insights about these tax topics and to forecast future effective tax rates.

0501	Brian Jefferson	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	TuTh 2:00pm - 3:50pm	VMH 2511

BUAC764 **Tax II: Taxation of Corporations & Other Entities**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758V or BUAC764. Formerly: BUAC758V.

Students have the opportunity to gain an understanding of the basic tax competencies required for determining the appropriate tax structure for businesses; issue identification; active listening; solving tax problems.

0501	Brian Jefferson **Meets October 23, 2023 - December 15, 2023** TuTh 4:00pm - 5:50pm	Seats (Total: 0) VMH 2511

BUAC772 **Database Management and State and Local Taxation**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Covers the tax implications of doing business in the United States across state lines, resulting in multiple taxation under the Commerce Clause of the United States Constitution. The course focuses on nexus or jurisdictional due process (which gives states the right to tax business profits), allocation and apportionment formulas of multi state income, business versus non-business income, privilege tax and discrimination. Also explored are the current tax developments under the Import-Export clause of the United States Constitution, taxation based on class legislation and the Equal Protection Clause, the multi-state tax compact, unitary concept, residence definitions, nonresident income sources, tax credits and short-period returns for individual income taxpayers, sales of tangible personal property, and retail and wholesale sales. The course examines valuation techniques for real and personal property. Students will learn the skills needed to understand and identify many aspects of the state income tax apportionment process. Focus will be placed on calculations and analyses required to present the state and local tax information in such a manner as to assist upper management in the business expansion decision-making process. The tax apportionment process requires a solid understanding of database management and we will utilize tools that are considered required knowledge in today's tax departments.

0501	Samuel Handwerger **Meets October 23, 2023 - December 15, 2023** TuTh 6:00pm - 7:50pm	Seats (Total: 0) VMH 2511

BUDT Decision and Information Technologies Fall 2023

BUDT700 **Business Communication**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUDT758A or BUDT700. Formerly: BUDT758A.

Consists of written and oral base-line assessments. Students will meet with Program administrators to receive feedback on these assessments and create an individualized development plan. Workshops and core course assignments, Smith-related activities and CMP assignments.

0506	Cary Gillett **Meets August 28, 2023 - October 16, 2023** W 7:00pm - 8:50pm Class time/details on ELMs	Seats (Total: 0) VMH 1528 ONLINE
0507	Cary Gillett **Meets August 28, 2023 - October 16, 2023** Th 7:00pm - 8:50pm Class time/details on ELMs	Seats (Total: 0) VMH 1335 ONLINE

BUDT702 **Database Management Systems**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Introduction to the conceptual, logical and physical design of relational database systems and their use in business environments. Topics include information modeling and optimization via normalization; Structured Query Language (SQL); Data Warehousing.

0501	Woei-jyh Lee **Meets August 28, 2023 - December 15, 2023** M 2:00pm - 3:50pm	Seats (Total: 0) VMH 1528
0502	Woei-jyh Lee **Meets August 28, 2023 - December 15, 2023** W 2:00pm - 3:50pm	Seats (Total: 0) VMH 1528

0503	Woei-jyh Lee **Meets August 28, 2023 - December 15, 2023** Tu 8:00am - 9:50am	Seats (Total: 0) VMH 1511

BUDT703 **Database Management Systems**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUDT758Y OR BUDT703. Formerly: BUDT758Y.

Introduction to the conceptual, logical and physical design of relational database systems and their use in business environments. Topics include information modeling and optimization via normalization; Structured Query Language (SQL); Data Warehousing.

0506	Woei-jyh Lee **Meets August 28, 2023 - December 15, 2023** MW 9:30am - 10:45am	Seats (Total: 0) VMH 1330
0507	Woei-jyh Lee **Meets August 28, 2023 - December 15, 2023** MW 11:00am - 12:15pm	Seats (Total: 0) VMH 1330

BUDT704 **Data Processing and Analysis in Python**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUDT758X OR BUDT704. Formerly: BUDT758X.

An introduction to the Python programming language for the purpose of processing, analyzing, and visualizing data. In addition, students will be introduced to developing basic regression, optimization, and simulation models in Python, using highly popular packages. Course emphasis is on mastering basic Python functionality and developing intermediate to advanced skills in working with data, through instruction and active learning.

0501	John Bono **Meets August 28, 2023 - December 15, 2023** TuTh 8:00pm - 9:15pm	Seats (Total: 0) VMH 1511

0502	John Bono **Meets August 28, 2023 - December 15, 2023** TuTh 6:30pm - 7:45pm	Seats (Total: 0) VMH 1511
0503	John Bono **Meets August 28, 2023 - December 15, 2023** TuTh 5:00pm - 6:15pm	Seats (Total: 0) VMH 1511
0506	Peng Huang **Meets August 28, 2023 - December 15, 2023** TuTh 3:30pm - 4:45pm	Seats (Total: 0) VMH 1412
0507	Peng Huang **Meets August 28, 2023 - December 15, 2023** TuTh 9:30am - 10:45am	Seats (Total: 0) VMH 1330

BUDT721 **Digital Transformation in Business**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUDT758E or BUDT721. Formerly: BUDT758E.

Introduces students to the strategic role of digital transformation within businesses, and provides an overview for how major information technologies may be used to inform and transform the firm's strategic, operational, and tactical decisions. Topics discussed in the course include the strategic use of digital technologies to generate sustainable competitive value; the contributions of new forms of technology infrastructure; the evaluation of new technology investments and the resulting ROI; acquiring, managing and governing technological capabilities within the firm; understanding the role of enterprise systems and social technologies within the firm; and the management of disruptive technologies within and outside the firm.

0501	Tejwansh Anand **Meets October 23, 2023 - December 15, 2023** TuTh 4:00pm - 5:50pm	Seats (Total: 0) VMH 1505

0502	Tejwansh Anand **Meets October 23, 2023 - December 15, 2023** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1505
0503	Tejwansh Anand **Meets October 23, 2023 - December 15, 2023** TuTh 6:30pm - 8:20pm	Seats (Total: 0) VMH 1505

BUDT722 **Managing Digital Business Markets**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith. Credit only granted for: BUDT758G or BUDT722. Formerly: BUDT758G.

The objective is to understand the strategic and tactical issues involved in managing digital businesses and markets. Also, some of the characteristics of digital businesses and markets that make them unique and understand how companies can best manage them will be examined.

0501	Siva Viswanathan **Meets August 28, 2023 - October 16, 2023** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1330
0502	Tejwansh Anand **Meets August 28, 2023 - October 16, 2023** TuTh 4:00pm - 5:50pm	Seats (Total: 0) VMH 1330
0503	Tejwansh Anand **Meets August 28, 2023 - October 16, 2023** TuTh 6:30pm - 8:20pm	Seats (Total: 0) VMH 1505

BUDT724 **Project Management in Dynamic Environments**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

Addresses project management skills that are required by successful managers in increasingly competitive and faster-moving environments. Examines fundamental concepts of successful project management, and the technical and managerial issues, methods, and techniques.

0501	Paul Shapiro **Meets October 23, 2023 - December 15, 2023** TuTh 6:00pm - 7:50pm	Seats (Total: 0) VMH 1528
0502	Paul Shapiro **Meets October 23, 2023 - December 15, 2023** TuTh 4:00pm - 5:50pm	Seats (Total: 0) VMH 1528
0503	Paul Shapiro **Meets October 23, 2023 - December 15, 2023** TuTh 2:00pm - 3:50pm	Seats (Total: 0) TYD 1102

BUDT730 **Data Models and Decisions**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith. Credit only granted for: BUSI758B, BUDT758Q or BUDT730. Formerly: BUDT758Q.

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

0506	Sujin Kim **Meets August 28, 2023 - December 15, 2023** TuTh 11:00am - 12:15pm	Seats (Total: 0) VMH 1330
0507	Sujin Kim **Meets August 28, 2023 - December 15, 2023** TuTh 12:30pm - 1:45pm	Seats (Total: 0) VMH 1330

BUDT731 **Data, Models, and Decisions Using R**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

0501	Sujin Kim **Meets August 28, 2023 - December 15, 2023** M 12:00pm - 1:50pm	Seats (Total: 0) VMH 1528
0502	Sujin Kim **Meets August 28, 2023 - December 15, 2023** W 12:00pm - 1:50pm	Seats (Total: 0) VMH 1528
0503	Sujin Kim **Meets August 28, 2023 - December 15, 2023** W 4:00pm - 5:50pm	Seats (Total: 0) VMH 1528

BUDT732 **Decision Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith. Credit only granted for: BMGT732, BUDT758P or BUDT732. Formerly: BMGT732 and BUDT758P.

Analytical modeling for managerial decisions using a spreadsheet environment. Includes linear and nonlinear optimization models, decision making under uncertainty and simulation models.

0506	Alexander Estes **Meets August 28, 2023 - December 15, 2023** MW 2:00pm - 3:15pm	Seats (Total: 0) VMH 1330
0507	Alexander Estes **Meets August 28, 2023 - December 15, 2023** MW 3:30pm - 4:45pm	Seats (Total: 0) VMH 1330

BUDT738 **Industry Seminar**

(Perm req)

This experiential course will be offered in the Fall and Spring Semester of the first year to provide students exposure to career paths, real-world technology challenges faced by business and how these challenges are overcome. UMD Smith alumni will host weekly interactive learning discussions.

0501	Tejwansh Anand, John Bono **Meets August 28, 2023 - December 15, 2023** F 11:30am - 1:00pm F 1:00pm - 2:30pm	Seats (Total: 0) VMH 1212 VMH 1212	 Discussion
0502	John Bono, Tejwansh Anand **Meets August 28, 2023 - December 15, 2023** F 11:30am - 1:00pm F 1:00pm - 2:30pm	Seats (Total: 0) VMH 1212 VMH 1330	 Discussion
0503	John Bono, Tejwansh Anand **Meets August 28, 2023 - December 15, 2023** F 11:30am - 1:00pm F 1:00pm - 2:30pm	Seats (Total: 0) VMH 1212 VMH 1412	 Discussion

BUDT740 **Management of Information Systems**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith. Credit only granted for: BUDT758J or BUDT740. Formerly: BUDT758J.

To work together effectively for an organization's success, both business managers and IS managers must understand how to both manage and utilize information systems. This course explores management issues and opportunities of the IS function within organizations. Topics include e-business, protection of intellectual property and personal information, software development, IS operations, systems availability and business continuity, IS for multinational organizations, shadow IS organizations, business partnerships and alliances, and mergers, acquisitions, and divestitures.

0501	Paul Shapiro **Meets August 28, 2023 - December 15, 2023** MW 11:00am - 12:15pm	Seats (Total: 53) VMH 1303	

BUDT758B **Special Topics in Decision, Operations and Information Technologies; Big Data and Artificial Intelligence for Business**

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0501	Peter Rankel, Alan Briggs **Meets August 28, 2023 - December 15, 2023** TuTh 3:30pm - 4:45pm	Seats (Total: 36) VMH 1518	

0502	Peter Rankel, Alan Briggs **Meets August 28, 2023 - December 15, 2023** TuTh 5:00pm - 6:15pm	Seats (Total: 28) VMH 1518

BUDT758I **Special Topics in Decision, Operations and Information Technologies; Applied Finance Information Systems**

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0501	Harish Neelakandan **Meets August 28, 2023 - December 15, 2023** M 5:00pm - 7:40pm	Seats (Total: 40) VMH 1330
0502	Harish Neelakandan **Meets August 28, 2023 - December 15, 2023** Tu 5:00pm - 7:40pm	Seats (Total: 40) VMH 1336

BUDT758L **Special Topics in Decision, Operations and Information Technologies; Price Optimization & Revenue Management**

(Perm req)

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Business Analytic students only.

0506	Yi Xu **Meets August 28, 2023 - December 15, 2023** M 7:00pm - 9:40pm	Seats (Total: 0) VMH 1505
0507	Yi Xu **Meets August 28, 2023 - December 15, 2023** Tu 7:00pm - 9:40pm	Seats (Total: 0) VMH 1330

BUDT758M **Special Topics in Decision, Operations and Information Technologies; Healthcare Information Systems**

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Information Systems students only.

0501	Kenyon Crowley **Meets August 28, 2023 - December 15, 2023** W 5:00pm - 7:40pm *For MS in Information Systems students only.*	Seats (Total: 50) VMH 1330

BUDT758W **Special Topics in Decision, Operations and Information Technologies; Capstone Project in Business Analytics**

(Perm req)

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0506	Suresh Acharya **Meets August 28, 2023 - December 15, 2023** Tu 7:00pm - 9:40pm *For MS in Business Analytics students only.*	Seats (Total: 0) VMH 1412
0507	Suresh Acharya **Meets August 28, 2023 - December 15, 2023** M 7:00pm - 9:40pm	Seats (Total: 0) VMH 1412

BUDT759 **Independent Study in Decision and Information Technologies**

(Perm req)

Independent study for masters students in decision and information technologies.

Contact department for information to register for this course.

BUFN Finance Fall 2023

600 and 700 level courses with the BUFN prefix are offered only for students in the Master of Finance and Master of Quantitative Financ programs.

BUFN400 **Introduction to Financial Markets and Financial Datasets**

(Perm req)

Prerequisite: STAT400, STAT401, STAT410, or STAT420. Recommended: CMSC320, CMSC351, MATH240, and MATH241; and should have extensive familiarity with Python including Pandas, Numpy, Scipy, Matplotlib; and familiarity with probability and statistics, econometric modeling. Restriction: By Permission Only.

Provides an overview of financial concepts and markets and datasets. Company financial statements will be used to review concepts including earnings, cash flow, accruals, investment, dividends, etc. The course will introduce concepts related to portfolio theory and asset pricing. It will introduce the fundamentals of the stock market and market microstructure, including bid ask spreads and market liquidity. Advanced topics include event studies, high frequency trading, Over The Counter (OTC) bond markets, and more specialized institutional arrangements including repo markets and foreign currency exchange markets.

Computer Science majors who would like to take this course should email Professor Albert Kyle askyle4@umd.edu and Professor Louiqa Raschid lraschid@umd.edu for permission to register for this course.

0101	Albert Kyle	Seats (Total: 36)
	MW 2:00pm - 3:15pm	AJC 2134

BUFN401 **Option Theory and Derivatives**

(Perm req)

Prerequisite: BUFN400.

Will introduce Option Theory and the concept of a derivative financial contract whose value is based on some underlying asset, e.g., a stock or bond or commodity. Option theory based pricing models are a cornerstone of modern finance. Unlike the Capital Asset Pricing Model (CAPM) that determines an appropriate rate of return, option theory primarily relies on arbitrage arguments, and the probability that an option will be exercised during some time interval. Option theory has been very successful empirically. Common derivative types include stock and bond and index options, futures contracts, forward contract and swaps.

0101	Steven Heston	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	VMH 1518

BUFN610 **Financial Management**

(Perm req)

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUSI640, BUFN610, or BMGT610.

The fundamental concepts and techniques used to evaluate corporate decisions. Topics include the time value of money, valuation of common securities, investment decisions, capital budgeting, capital structure, and the weighted average cost of capital. The objectives are to develop the ability to make investment decisions, manage project finances, and analyze financial decisions.

0501	Michael Faulkender	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	TuTh 10:00am - 11:50am	VMH 1505

0505	Michael Faulkender **Meets August 28, 2023 - October 16, 2023** TuTh 12:00pm - 1:50pm	Seats (Total: 0) VMH 1505

BUFN620 **Capital Markets**

(Perm req)

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN740 or BUFN620. Formerly: BUFN740.

Covers modern theories and techniques for analyzing investments in different securities. Introduces mathematical and statistical models to price securities and guide investment decisions. The main topics covered are portfolio theory, pricing models, market efficiency, fixed income investment, and options.

For Master of Finance students only.

0501	Sarah Kroncke **Meets August 28, 2023 - October 16, 2023** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1505

BUFN630 **Valuation in Corporate Finance**

(Perm req)

Prerequisite: BUFN610. Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN630, BUFN714, BUFN750, BUFN753, or BMGT730. Formerly: BUFN750.

An advanced corporate finance course focusing on valuation. The main objective is to apply the concepts covered in the introductory finance class through real-life applications (cases) and use valuation estimates to guide and communicate investment decisions. The topics include building Pro Forma statements and forecasting future cash flows, dynamic cash flow models, estimating the cost of capital, implementing the Weighted Average Cost of Capital (WACC) and Adjusted Present Value (APV) methods, and using real options techniques (binomial and Black and Scholes models as well as Monte Carlo simulations) to value companies and projects.

0501	Maria Bustamante **Meets October 23, 2023 - December 15, 2023** TuTh 12:00pm - 1:50pm	Seats (Total: 0) VMH 1505

0505	Maria Bustamante **Meets October 23, 2023 - December 15, 2023** TuTh 10:00am - 11:50am	Seats (Total: 0) VMH 1505

BUFN640 **Financial Data Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN758N of BUFN640. Formerly: BUFN758N.

Introduces the skills and computing languages for analyzing financial data and testing financial models. Covers topics such as the ordinary least square regression (OLS) estimator, its properties and applications, statistical inference, and univariate and multivariate analysis. The focus is on working with data and applying econometric models to financial applications such as estimating asset pricing models, portfolio choice, and the efficient frontier. The course will use Python programming language, Google Colab environment, and matching learning packages.

0501	Serhiy Kozak **Meets August 28, 2023 - October 16, 2023** MW 12:00pm - 1:50pm Contact instructor or department for details.	Seats (Total: 0) VMH 1336
0505	Serhiy Kozak **Meets August 28, 2023 - October 16, 2023** MW 10:00am - 11:50am Contact instructor or department for details.	Seats (Total: 0) VMH 1336

BUFN650 **Machine Learning in Finance**

(Perm req)

Prerequisite: BUFN640. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN758O or BUFN650. Formerly: BUFN758O.

A hands-on course on applications of cutting-edge machine learning methods to financial modeling. It builds on the Financial Analytics class to introduce students to a wide variety of machine learning techniques ranging from lasso regression to deep learning and TensorFlow. The course provides the basic ideas and intuition behind these methods, a more formal understanding of how and why they work, and opportunities to experiment with machine-learning algorithms and apply them to big data modeling in finance. It will use the Python programming language, Google Colab environment, and machine learning packages.

0501	Serhiy Kozak **Meets October 23, 2023 - December 15, 2023** MW 12:00pm - 1:50pm	Seats (Total: 0) VMH 1336
0505	Serhiy Kozak **Meets October 23, 2023 - December 15, 2023** MW 10:00am - 11:50am	Seats (Total: 0) VMH 1336

BUFN660 **Derivative Securities**

(Perm req)

Prerequisite: BUFN610. Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN660, BUFN726, BUFN761 or BUFN773. Formerly: BUFN761.

Introduces standard derivative contracts, including forwards and futures, swaps, and options. Covers the mathematical foundation of valuing derivative contracts, the use of static and dynamic replication strategies, and the concept of no-arbitrage. Derivative securities on various underlying assets (equities, indices, commodities, foreign exchange, etc.) are analyzed using different application contexts.

0501	Steven Heston **Meets October 23, 2023 - December 15, 2023** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1330
0505	Steven Heston **Meets October 23, 2023 - December 15, 2023** TuTh 4:00pm - 5:50pm	Seats (Total: 0) VMH 1330

BUFN717 **Entrepreneurial Finance and Private Equity**

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN755 or BUFN717. Formerly: BUFN755.

An advanced topics course in Corporate Finance. The major emphasis is how financiers help growing firms - and in particular young start-ups - using different types of securities at different points in the industry's and firm's life. Financing arrangements and securities studied will include private equity funds and private financings placements, Venture Capital (VC) and preferred equity, Investment Banks through Initial Public Offerings (IPOs), Private equity finds, debt and leveraged buyouts. Students will learn additional techniques that will help them understand how financiers value firms and how to understand, plan and value different financing strategies.

0501	Pablo Slutzky **Meets October 23, 2023 - December 15, 2023** TuTh 12:00pm - 1:50pm	Seats (Total: 42) VMH 2511

BUFN721 **International Investment**

Prerequisite: BUFN610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN721 or BUFN770. Formerly: BUFN770.

Addresses international stock markets, portfolio theory, international interest rates, exchange rates and exchange rate derivatives (options, forwards, and futures), exchange rate swaps and exchange rate exposure (operating, translation, and transaction), foreign investment strategy.

0501	Vojislav Maksimovic **Meets August 28, 2023 - October 16, 2023** MW 2:00pm - 3:50pm Contact instructor or department for details.	Seats (Total: 50) VMH 1336

BUFN734 **Portfolio Management**

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN734 or BUFN763. Formerly: BUFN763.

Provides training that is important in understanding the investment process - the buy side of the financial world. Specifically, the objective is to provide graduate-level instruction in the following topics, both in theory and in using financial markets data to test the basic theory and practice of portfolio choice and equilibrium pricing models and their implications for efficient portfolios.

0501	Mark Loewenstein **Meets August 28, 2023 - October 16, 2023** TuTh 4:00pm - 5:50pm	Seats (Total: 45) VMH 1520

BUFN736 **Quantitative Investment Strategies**

Prerequisite: BUFN610. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN764 or BUFN736. Formerly: BUFN764.

Provides an introduction to quantitative techniques of selecting equities, as used commonly among long-short equity hedge funds and other quantitative equity asset management companies. Statistical factor models are developed to locate stocks with higher expected returns, based on the observable characteristics of the stocks. Implementation issues, including statistical estimation, backtesting and portfolio construction, are covered, as is performance evaluation.

0501	Russell Wermers **Meets October 23, 2023 - December 15, 2023** TuTh 4:00pm - 5:50pm	Seats (Total: 40) VMH 1333

BUFN741 Advanced Capital Markets

Prerequisite: BUFN620; or permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN758P or BUFN741. Formerly: BUFN758P.

This course covers modern theories and techniques for investments and asset pricing. The main topics covered are: portfolio theory, pricing models, market efficiency, fixed income investment, forwards and futures, and options.

For Master of Quantitative Finance students only.

0505	Kenneth Fuller **Meets August 28, 2023 - October 16, 2023** TuTh 4:00pm - 5:50pm	Seats (Total: 0) VMH 2511

BUFN742 Financial Engineering

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Credit only granted for: BUFN742 or BUFN766. Formerly: BUFN766.

Introduces and applies various computational techniques useful in the management of equity and fixed income portfolios and the valuation of financial derivatives and fixed income securities. Techniques include Monte Carlo Simulation and binomial/lattice pricing models. Emphasis is on bridging theory with the design of algorithms and models that can be directly applied in practice.

0501	Apoorva Javadekar **Meets October 23, 2023 - December 15, 2023** TuTh 12:00pm - 1:50pm	Seats (Total: 40) VMH 1520

BUFN746 Enterprise and Credit Risk Management

Prerequisite: BUSI640; and BUFN740. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Surveys the theory and practice of credit risk identification, measurement and mitigation along with understanding the principles of enterprise risk governance and risk-adjusted returns. The course examines how to develop credit loss distributions via Monte Carlo simulation or copula methodologies for consumer assets such as mortgages, credit cards and auto loans, developing commercial loan scorecards for rating credit risk. Pricing and use of various credit structures such as credit default swaps, collateralized debt obligations and credit-linked notes is examined.

0501	Clifford Rossi	Seats (Total: 50)
	Meets August 28, 2023 - October 16, 2023	
	Tu 8:00am - 9:50am Th 8:00am - 9:50am	VMH 1505 ONLINE

BUFN747 Asset-Liability and Nonfinancial Risk Management

Prerequisite: BUSI640; and BUFN740. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

This course surveys risks and techniques associated with asset-liability and nonfinancial risks including market and interest rate risk, liquidity risk, operational risk and model risk, among others. Techniques such as portfolio value-at-risk (VaR) are used in realistic empirical examples to illustrate the methods. Key rate duration, principal components analysis and analytical and simulation-based VaR techniques are used to estimate interest rate risk exposure for financial firms. Hedging these risks using various financial derivative products such as options, swaps and futures contracts is explored. Operational risk is estimated leveraging Poisson loss distributions and model risk and validation techniques are reviewed.

0501	Clifford Rossi	Seats (Total: 40)
	Meets October 23, 2023 - December 15, 2023	
	M 2:00pm - 3:50pm W 2:00pm - 3:50pm	VMH 1511 ONLINE

BUFN758D Special Topics in Finance; big data in finance

Selected advanced topics in the various fields of graduate study in finance.

0501	Seokwoo Lee	Seats (Total: 37)
	Meets August 28, 2023 - October 16, 2023	
	W 6:25pm - 10:00pm	VMH 2505

BUFN758G Special Topics in Finance; Investment Fund Management: Mayer Fund

(Perm req)

Selected advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN758Z **Special Topics in Finance; Global Equity Fund**

(Perm req)

Selected advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN759 **Independent Study in Finance**

(Perm req)

Independent study for Masters students in finance.

By Department Permission Only.

Contact department for information to register for this course.

BUFN768A **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768B **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768O **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768P **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768X **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768Y **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BULM Logistics, Business, and Public Policy Fall 2023

Courses with the BULM prefix are offered only for students in the MS in Supply Chain Management program.

BULM700 **Business Fundamentals for Supply Chain Managers I**

(Perm req)

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BULM758K or BULM700. Formerly: BULM758K.

This course is part of a series of two courses Business Fundamentals for SCM part I and, part II. The series is intended to provide you with the knowledge and skills necessary to quantify the impact of supply chain management decisions on the bottom line. Students will gain a solid understanding of accounting, finance and the link between supply chain and overall financial performance. Students will analyze financial statements and explain the implications of supply chain management decisions on standard financial ratios and all components of the balance sheet and income statement. Through interactive supply chain finance models, students will demonstrate the sensitivity of outcome to multiple independent variables. Last but not least, students will also learn how to apply the net present value technique to evaluate the feasibility of investment projects in supply chain.

0501	Humberto Coronado	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	TuTh 12:00pm - 1:50pm	VMH 1520

BULM701 **Business Fundamentals for Supply Chain Managers II**

(Perm req)

Prerequisite: BULM700; or permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM758Q or BULM701. Formerly: BULM758Q.

This is the second course of the series Business fundamentals for Supply Chain Managers. This course is intended to provide you with the knowledge and skills necessary to quantify the impact of supply chain management decisions on the bottom line. Students will gain a solid understanding of accounting, finance and the link between supply chain and overall financial performance. Students will analyze financial statements and explain the implications of supply chain management decisions on standard financial ratios and all components of the balance sheet and income statement. Through interactive supply chain finance models, students will demonstrate the sensitivity of outcome to multiple independent variables. Last but not least, students will also learn how to apply the net present value technique to evaluate the feasibility of investment projects in supply chain.

0501	Humberto Coronado	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	TuTh 12:00pm - 1:50pm	VMH 1333

BULM710 **Data Driven Decision Making I**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI630, BULM758X or BULM710. Formerly: BULM758X.

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

0501	Ashish Kabra	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	MW 2:00pm - 3:50pm	VMH 1520
	Contact instructor or department for details.	

BULM711 **Data Driven Decision Making II**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI630, BULM758Y or BULM711. Formerly: BULM758Y.

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

0501	Maria Bardossy	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	TuTh 2:00pm - 3:50pm	VMH 1333

BULM721 **Global Supply Chain Management**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI672 or BULM721.

Offers a practical blueprint for understanding, building, implementing, and sustaining supply chains in today's rapidly changing global supply chain environment. It will provide the student with a survey of the fast-moving Supply Chain Management discipline and practice, including the evolution of supply chain strategies, business models and technologies; current best practices in demand and supply management; and methodologies for conducting supply chain-wide diagnostic assessments and formulating process improvement plans.

0501	Humberto Coronado	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	TuTh 4:00pm - 5:50pm	VMH 1528

BULM742 **Global Supply Chain Resources Planning**

(Perm req)

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business.

Provides students with an overall understanding of how firms use an advanced supply chain planning (ASCP) application as an integral part of their materials management process which includes such activities as production planning, materials requirements planning, and distribution requirements planning.

0501	Philip Evers	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	MW 2:00pm - 3:50pm	VMH 1520

BULM750 **Lean Sigma for Supply Chain I**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM758L or BULM750. Formerly: BULM758L.

This course is part of a series of courses. This the second part of the Lean Six Sigma for SC Managers course series. We will be focusing on the Analyze, Improve and Control phases of the Lean Six Sigma methodology. Lean Six Sigma is a robust methodology for problem solving aiming to improve quality and reduce speed within a process. This course covers up to the Lean and Six Sigma Green Belt level body of knowledge. You will be expected to conduct a project on a case study of a business looking to improve their processes to meet customer requirements.

0501	Jewelyn Harrington **Meets August 28, 2023 - October 16, 2023** M 6:25pm - 10:00pm Contact instructor or department for details.	Seats (Total: 0) VMH 1511

BULM751 **Lean Sigma for the Supply Chain II**

(Perm req)

Prerequisite: BULM750. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM758V or BULM751. Formerly: BULM758V.

This course is part of a series of courses. The first part will cover the Introduction, Define and Measure Phases of the Lean Six Sigma Methodology. Lean Six Sigma is a robust methodology for problem solving aiming to improve quality and reduce speed within a process. This course covers up to the Lean and Six Sigma Green Belt level body of knowledge. You will be expected to conduct a project on a case study of a business looking to improve their processes to meet customer requirements.

0501	Jewelyn Harrington **Meets October 23, 2023 - December 15, 2023** M 6:25pm - 10:00pm	Seats (Total: 0) VMH 1511

BULM756 **Supply Chain Strategy**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM758B or BULM756. Formerly: BULM758B.

Examines supply chain management at the strategic level. Through class lectures, case discussions, and assignments, students first learn about the determinants of corporate strategy. Supply chain strategies are then discussed, along with the need to properly align supply chain strategy with corporate strategy. Finally, there is a discussion of how to implement supply chain strategy, given various environmental and market considerations.

0501	Martin Dresner **Meets October 23, 2023 - December 15, 2023** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1511

BULM758N **Special Topics in Logistics, Business and Public Policy; Supply Chain Sustainability**

(Perm req)

Selected advanced topics in the various fields of graduate study in logistics, business and public policy.

0501	Jon Crocker	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	TuTh 2:00pm - 3:50pm	VMH 1528

BULM759 **Independent Study in Logistics Management**

(Perm req)

Independent study for Masters students in Logistics Management.

Contact department for information to register for this course.

BUMK Marketing Fall 2023

BUMK720 **Marketing Strategy**

(Perm req)

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUMK758B or BUMK720. Formerly: BUMK758B.

Introduces students to the fundamentals of marketing. This course combines lectures, readings, case analyses and a competitive simulation. A significant part of the course involves a competitive computer-based simulation in which student teams leverage marketing data and metrics to make marketing decisions for an organization that is competing in a market against other student teams in the class.

Courses with the BUMK prefix are offered only for students in the MS in Marketing Analytics program. Cross-listed with BDBA858M. Credit only granted for BUMK720 or BDBA858M.

0501	Judy Frels	Seats (Total: 0)
	Meets August 28, 2023 - December 15, 2023	
	TuTh 5:00pm - 6:15pm	VMH 1335

BUMK724 **Customer Analysis**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758D or BUMK724. Formerly: BUMK758D.

Focuses on the analysis of customer decision-making and how marketing strategy can be used to influence those decisions. The framework used is the buyer behavior model, in which concepts from psychology, sociology, and economics are applied to individual and organizational purchase decisions. Marketing strategies of leading firms in consumer products, technology, and services (including internet services) are analyzed using a variety of case study formats.

Cross-listed with BDBA858A. Credit only granted for BUMK724 or BDBA858A.

0501	Rosellina Ferraro **Meets August 28, 2023 - December 15, 2023** MW 12:30pm - 1:45pm	Seats (Total: 0) VMH 1330

BUMK726 **Statistical Programming for Customer Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758E or BUMK726. Formerly: BUMK758E.

Provides students with a foundation in probability and statistics with a focus on business applications. It also gives students a foundation for thinking in both likelihood and Bayesian frameworks. The course teaches students the basics of SAS, as well as its use in statistical analysis and statistical programming. Also addressed are basic SAS language structure, data management, OLAP, enterprise miner, statistical analysis, writing procedures.

0501	Jason Choi **Meets August 28, 2023 - December 15, 2023** TuTh 3:30pm - 4:45pm	Seats (Total: 0) VMH 1511

BUMK742 **Marketing Analytics for Consulting**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758K or BUMK742. Formerly: BUMK758K.

The analysis of marketing data needed for profitable marketing decisions. Advanced methods of marketing analysis for marketing decisions, including choice and count data models, joint analysis of consumers choice, quantity and timing decisions, mixture and mixture regression models, and conjoint analysis, all using data-based cases and SAS software. Applications are in the areas of strategic marketing, marketing segmentation, eye tracking for advertising effectiveness, new product development, sales promotion analysis, pricing, design of marketing mix, and direct marketing.

0501	Michel Wedel **Meets August 28, 2023 - December 15, 2023** W 7:00pm - 9:40pm	Seats (Total: 0) VMH 1412

BUMK758G **Special Topics in Marketing**

(Perm req)

Selected advanced topics in the various fields of graduate study in marketing.

0501	Christine Schaaf **Meets October 23, 2023 - December 15, 2023** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1520
0502	Melissa Lucas **Meets October 23, 2023 - December 15, 2023** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1518

BUMK759 **Independent Study in Marketing**

(Perm req)

Independent study for Masters students in Marketing.

Contact department for information to register for this course.

BUMK760 **Business Policies and Ethics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758F or BUMK760. Formerly: BUMK758F.

The standards of business conduct, morals and values as well as the role of business in society. Students will consider the sometimes conflicting interests of and claims on the firm and its objectives.

Cross-listed with BDBA858B. Credit only granted for BUMK760 or BDBA858B.

0501	Wendy Moe **Meets August 28, 2023 - December 15, 2023** TuTh 1:00pm - 1:50pm	Seats (Total: 0) VMH 1412

BUMK766 **Digital Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758N or BUMK766. Formerly: BUMK758N.

Examines the process of developing, implementing and analyzing strategies for successfully marketing a variety of existing and potential products and services on the Internet. Special attention is devoted to the tools and techniques unique to the electronic media.

0501	Michael Trusov	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	TuTh 6:00pm - 7:50pm	VMH 1333

BUMK773 **Pricing Analytics and Strategies**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758J or BUMK773. Formerly: BUMK758J.

The economic and behavioral aspects of pricing and the evaluation of innovative pricing practices such as price matching, customized pricing, bundle pricing and product line pricing. The course will cover both B2B, B2C, online and offline markets. Instruction will be through a mix of case studies, pricing simulation games, hands-on exercises, practitioner guest lectures and discussions.

0501	Bo Zhou	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	TuTh 10:00am - 11:50am	VMH 1520

BUSI Part-Time MBA Program Fall 2023

BUSI600 **Fundamentals of Business Decision Making**

(Perm req)

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business. Additional information: Pre-work includes the DISC assessment, and a requires a passing grade on a spreadsheet pre-work course.

Introduces students to the language of business. Topics covered include financial accounting, financial management, data models, strategy, leadership and teamwork, and a brief action learning project on innovation.

BA01	Mary Beth Furst	Seats (Total: 80)
	Meets August 19, 2023 - August 20, 2023	
	SaSu 8:00am - 6:00pm Contact instructor or department for details.	Location: TBA
	Meets in person 8/19, and 8/20.	

BUSI602 **Leading with a Strategic Mindset**

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

This course sits at the intersection of leadership and strategy. Focuses on the aspects of the firm that facilitate reaching strategic objectives. In particular, organizational alignment facilitates the development of innovative ideas, achieving operational efficiency, sustaining organizational growth, adopting new business models, achieving strategic change, and building organizational competence. Use of several tools in analysis, such as congruence analysis, the 7S model, network analysis, and design thinking. Focus on thinking systematically and analytically about managing an organization and leading strategically.

GS01	Paulo Prochno **Meets October 23, 2023 - December 15, 2023** Tu 6:25pm - 10:00pm	Seats (Total: 45) BLD4 5308
WW01	Paulo Prochno **Meets October 23, 2023 - December 15, 2023** Th 6:25pm - 10:00pm Class time/details on ELMs	Seats (Total: 45) ONLINE ONLINE

BUSI611 **Managerial Accounting**

(Perm req)

Prerequisite: BUSI610. Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI611, BUAC616, or BMGT616.

Use of accounting data in corporate planning and control. Cost-volume- profit analysis, budgeting, pricing decisions and cost data, transfer pricing, activity-based management, performance measures, and standard costing.

BA01	Lu Zhang **Meets August 28, 2023 - October 13, 2023** W 6:25pm - 10:00pm	Seats (Total: 45) BA 103
DC01	Lu Zhang **Meets August 28, 2023 - October 13, 2023** M 6:25pm - 10:00pm Contact instructor or department for details.	Seats (Total: 45) DC C3

GS01	Lu Zhang **Meets August 28, 2023 - October 13, 2023** Th 6:25pm - 10:00pm	Seats (Total: 45) BLD4 5308

BUSI634 **Operations Management**

(Perm req)

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI634 or BMGT624.

Operations management is concerned with efficient and effective design and operation of business processes for delivering products and/or services. Emphasis is given to process analysis and design, capacity management and bottlenecks, waiting lines and the impact of uncertainty in process performance, quality management, lean, six-sigma, and revenue management.

BA01	Zhi-Long Chen **Meets October 23, 2023 - December 15, 2023** W 6:25pm - 10:00pm	Seats (Total: 45) BA 104
DC01	Anand Anandalingam **Meets October 23, 2023 - December 15, 2023** M 6:25pm - 10:00pm Contact instructor or department for details.	Seats (Total: 45) DC C3
GS01	Zhi-Long Chen **Meets October 23, 2023 - December 15, 2023** Th 6:25pm - 10:00pm	Seats (Total: 45) BLD4 5308

BUSI650 **Marketing Management**

(Perm req)

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI650 or BMGT612.

Analysis of marketing problems and evaluation of specific marketing efforts regarding the organization's products and services, pricing activities, channel selection, and promotion strategies in both domestic and international markets.

BA01	Dan Goldsmith **Meets October 23, 2023 - December 15, 2023** Th 6:25pm - 10:00pm	Seats (Total: 45) BA 104
DC01	Yi Chen **Meets October 23, 2023 - December 15, 2023** M 6:25pm - 10:00pm	Seats (Total: 45) DC C2
GS01	Judy Frels **Meets October 23, 2023 - December 15, 2023** W 6:25pm - 10:00pm	Seats (Total: 45) BLD4 5308

BUSI662 **Leadership and Teamwork**

(Perm req)

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BMGT600, BUSI662, or BUSM600.

Course examines concepts of team-building and leadership which are critical to managerial success. Topics include leadership, decision making, communication and conflict, work motivation, building effective teams, and organizational change and culture.

BA01	Subrahmaniam Tangirala **Meets August 28, 2023 - October 13, 2023** Th 6:25pm - 10:00pm	Seats (Total: 45) BA 104
DC01	Subrahmaniam Tangirala **Meets August 28, 2023 - October 13, 2023** M 6:25pm - 10:00pm Contact instructor or department for details.	Seats (Total: 45) DC C2
GS01	Subrahmaniam Tangirala **Meets August 28, 2023 - October 13, 2023** W 6:25pm - 10:00pm	Seats (Total: 45) BLD4 5308

BUSI681 **Managerial Economics and Public Policy**

(Perm req)

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI681 or BMGT604.

Basic microeconomic principles used by firms, including supply and demand, elasticities, costs, productivity, pricing, market structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

BA01	Jon Crocker **Meets August 28, 2023 - October 13, 2023** Tu 6:25pm - 10:00pm	Seats (Total: 45) BA 104
DC01	Jon Crocker **Meets August 28, 2023 - October 13, 2023** W 6:25pm - 10:00pm	Seats (Total: 45) DC C3
GS01	Jon Crocker **Meets August 28, 2023 - October 13, 2023** M 6:25pm - 10:00pm Contact instructor or department for details.	Seats (Total: 45) BLD4 5308

BUSI710 **Competitive and Collaborative Negotiation**

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Increase negotiating self-confidence and improve capacity to achieve win-win solutions to organizational problems. Improve effectiveness at finding creative solutions to conflict.

BA01	Gosia Langa Basit **Meets August 28, 2023 - October 13, 2023** M 6:25pm - 10:00pm Contact instructor or department for details.	Seats (Total: 45) BA 103
DC01	Rellie Rozin **Meets August 28, 2023 - October 13, 2023** Th 6:25pm - 10:00pm	Seats (Total: 45) DC C1

GS01	Vijaya Venkataramani **Meets August 28, 2023 - October 13, 2023** Tu 6:25pm - 10:00pm	Seats (Total: 45) BLD4 5308

BUSI718D **Special Topics in Business; Data Driven Analytics**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

BA01	Ashish Kabra **Meets October 23, 2023 - December 15, 2023** Tu 6:25pm - 10:00pm	Seats (Total: 45) BA 104
DC01	Ashish Kabra **Meets October 23, 2023 - December 15, 2023** W 6:25pm - 10:00pm	Seats (Total: 45) DC C2
GS01	Ashish Kabra **Meets October 23, 2023 - December 15, 2023** M 6:25pm - 10:00pm	Seats (Total: 45) BLD4 5308

BUSI737 **Innovation & Product Development**

Prerequisite: BUSI650. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Focuses on the development of innovations, new products or new services from the perspective of a marketer. For an innovation to be successful in the market, it has to be customer centric: hence, in this course, we study how to develop and bring to market elegant and efficient solutions to strong customer needs. This is a fundamental business challenge, faced while working in a startup or in an established company; when developing a new product or a new service; and when serving customers who are individuals or large corporations.

BA01	Mary Beth Furst **Meets October 23, 2023 - December 15, 2023** Th 6:25pm - 10:00pm	Seats (Total: 45) BA 102

BUSI741 **Financial Strategy for Corporations**

Prerequisite: BUSI640. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Advanced course in corporate finance, focusing on the issues that firms face when they plan to raise external capital from financial markets. The focus is on the financing problems faced by mid-market to large firms and on capital raised from public markets. The forms of external finance vary from simple debt or equity to more complex securities that bundle with an element of risk management.

DC01	Pablo Slutzky **Meets August 28, 2023 - October 13, 2023** Tu 6:25pm - 10:00pm *This course section meets in a synchronous hybrid format with some students attending exclusively in-person and others attending exclusively online.*	Seats (Total: 45) DC C3

BUSI758D **Special Topics in Business; Business Decoded**

Selected advanced topics in the various fields of graduate study in business.

BA06	Paulo Prochno **Meets August 28, 2023 - October 13, 2023** Contact instructor or department for details.	Seats (Total: 20)
BA07	Paulo Prochno **Meets October 23, 2023 - December 15, 2023** Contact instructor or department for details.	Seats (Total: 20)
DC06	Paulo Prochno **Meets August 28, 2023 - October 13, 2023** Contact instructor or department for details.	Seats (Total: 20)
DC07	Paulo Prochno **Meets October 23, 2023 - December 15, 2023** Contact instructor or department for details.	Seats (Total: 20)
GS06	Paulo Prochno **Meets August 28, 2023 - October 13, 2023** Contact instructor or department for details.	Seats (Total: 20)

GS07	Paulo Prochno **Meets October 23, 2023 - December 15, 2023** Contact instructor or department for details.	Seats (Total: 20)

BUSI758E **Special Topics in Business; Business Decoded**

Selected advanced topics in the various fields of graduate study in business.

BA06	Paulo Prochno **Meets August 28, 2023 - October 13, 2023** Contact instructor or department for details.	Seats (Total: 20)
BA07	Paulo Prochno **Meets October 23, 2023 - December 15, 2023** Contact instructor or department for details.	Seats (Total: 20)
DC06	Paulo Prochno **Meets August 28, 2023 - October 13, 2023** Contact instructor or department for details.	Seats (Total: 20)
DC07	Paulo Prochno **Meets October 23, 2023 - December 15, 2023** Contact instructor or department for details.	Seats (Total: 20)
GS06	Paulo Prochno **Meets August 28, 2023 - October 13, 2023** Contact instructor or department for details.	Seats (Total: 20)
GS07	Paulo Prochno **Meets October 23, 2023 - December 15, 2023** Contact instructor or department for details.	Seats (Total: 20)

BUSI758F **Special Topics in Business; Investment Fund Management**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

DC01	Kenneth Fuller **Meets August 28, 2023 - December 15, 2023** Th 6:25pm - 10:00pm	Seats (Total: 45) DC C2

BUSI758J **Special Topics in Business; Digital Customer Journey**

Selected advanced topics in the various fields of graduate study in business.

DC01	Rosellina Ferraro **Meets October 23, 2023 - December 15, 2023** Tu 6:25pm - 10:00pm *This course section meets in a synchronous hybrid format with some students attending exclusively in-person and others attending exclusively online.*	Seats (Total: 45) DC C3

BUSI758K **Special Topics in Business; Portfolio Management**

Selected advanced topics in the various fields of graduate study in business.

WW01	Mark Loewenstein **Meets August 28, 2023 - October 13, 2023** Th 6:25pm - 10:00pm Class time/details on ELMs	Seats (Total: 45) ONLINE ONLINE

BUSI759 **Independent Study in Business**

(Perm req)

Independent study for Masters students in Business.

Contact department for information to register for this course.

BUSI781 **Marketing Emergent Technology**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

The many challenges and best practices of successfully marketing emergent technologies. The course will begin with a discussion of past successes and failures in marketing emergent technologies; followed by a study of the effective approaches and frameworks that help technology managers identify and understand customer needs. We will then focus on analyzing how the identified customer needs can guide design and development of emergent technologies. We will subsequently turn our attention to understanding how to translate customer needs and market conditions into effectively positioning our emergent technologies, with the intent of maximizing success when going to market.

DC06	Yogesh Joshi **Meets November 13, 2023 - December 10, 2023** Sa 9:00am - 5:00pm *Meets in-person on 11/18 and 12/2.*	Seats (Total: 45) DC C3

BUSI787 **Integrative Capstone**

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Provide students with an integrative experience to utilize the functional tools amassed in the MBA program and acquire new knowledge in the areas of international business, business ethics and executive/leadership presence, provide students with the opportunity to work with multiple functional areas at a time to drive business growth and utilize cases to address domestic and international challenges, enabling you to sharpen your skills in utilizing several methods for adding economic value when expanding globally. Additionally, students will raise awareness of best practices in building executive/leadership presence, as functional knowledge and business expertise is not enough to ensure successful career progression.

WW01	Judy Frels **Meets September 14, 2023 - October 27, 2023** SaSu 8:30am - 5:30pm Class time/details on ELMs *Course meets in a synchronous online format on 10/21 and 10/22.*	Seats (Total: 20) ONLINE ONLINE

BUSI788B **Introduction to Global Business Experience; Doing Business in Brazil**

Introduction to the economic climate of the country and region, history, political influences on business landscape, and specific opportunities and threats of doing business in the destination country. Course is a prerequisite to short-term study abroad classes.

GX01	Paulo Prochno **Meets October 23, 2023 - December 15, 2023** Su 12:00pm - 1:00pm Contact instructor or department for details.	Seats (Total: 0) VMH 1303

BUSI788J **Introduction to Global Business Experience; Doing Business in South Africa**

Introduction to the economic climate of the country and region, history, political influences on business landscape, and specific opportunities and threats of doing business in the destination country. Course is a prerequisite to short-term study abroad classes.

GX01	Bennet Zelner	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	Su 12:00pm - 1:00pm	VMH 1330
	Contact instructor or department for details.	

BUSI788W **Introduction to Global Business Experience; Doing Business in Asia: Supply Chain Challenges and Opportunities in Asia**

Introduction to the economic climate of the country and region, history, political influences on business landscape, and specific opportunities and threats of doing business in the destination country. Course is a prerequisite to short-term study abroad classes.

GX01	Zhi-Long Chen	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	Su 12:00pm - 1:00pm	VMH 1333
	Contact instructor or department for details.	

BUSI791 **Research and Development Strategy and Process**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

This course will educate technology management professionals on contemporary strategy, management approaches, and best-practices for research and development. The course will focus on private sector methods to manage technology programs, identify and specify technical requirements, communicate technology use and value, and assess new technologies and architectures. It will include instruction on technology scouting and assessing Technology Readiness Levels (TRLs). Through engagement with experts in creating and managing technology, students will also be exposed to human and behavioral factors that can influence technology adoption in the commercial and public sector.

DC06	Joseph Bailey	Seats (Total: 45)
	Meets August 28, 2023 - October 1, 2023	
	Sa 9:00am - 5:00pm	DC C3
	Meets in-person on 9/2, 9/16, and 9/30.	

BUSI793 **Technology Entrepreneurship, Innovation and Commercialization**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Best practices and challenges in organizing and cultivating new ideas into successful public and private sector technology ventures. The course provides an integrated strategic framework for innovation-based entrepreneurs and technology professionals. It will be structured to provide a deep understanding of the core strategic choices facing startup innovators, a synthetic framework for the development and implementation of entrepreneurial strategy in dynamic environments, and the ability to scale those ventures over time. A central theme of the course is that, to achieve competitive advantage, technology entrepreneurs must balance the process of experimentation and learning inherent to both technological advance and entrepreneurship, with the selection and implementation of a strategy that establishes a competitive advantage. The course identifies the key choices entrepreneurs make to take advantage of a novel opportunity and the logic of particular strategic commitments and positions that allow entrepreneurs to establish a competitive advantage.

DC06	Brent Goldfarb	Seats (Total: 45)
	Meets October 2, 2023 - November 12, 2023	
	Sa 9:00am - 5:00pm	DC C3
	Meets in-person on 10/7, 10/21, and 11/4.	

BUSI799 **Masters Thesis Research**

(Perm req)

Contact department for information to register for this course.

BUSM Full-Time MBA Program Fall 2023

Courses with the BUSM prefix are offered only for students in the full- time MBA program.

BUSM600 **Leadership and Teamwork**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BMGT600, BUSI662 or BUSM600.

Course examines concepts of team-building and leadership which are critical to managerial success. Topics include leadership, decision making, communication and conflict, work motivation, building effective teams, and organizational change and culture.

0101	Nicole Coomber	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	TuTh 10:00am - 11:50am	VMH 1333

BUSM602 **Introduction to Financial Accounting**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI610 or BUSM602.

Overview of financial accounting, periodic financial statements and the financial reporting process. Importance of financial statements as information source for creditors and investors and as a means by which managers can communicate information about their firms.

0101	Nick Seybert	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	MW 12:00pm - 1:50pm Contact instructor or department for details.	VMH 1520

BUSM604 **Managerial Economics and Public Policy**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI681 or BUSM604.

Basic microeconomic principles used by firms, including supply and demand, elasticities, costs, productivity, pricing, market structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

0101	Rachelle Sampson	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	MW 10:00am - 11:50am Contact instructor or department for details.	VMH 1511

BUSM606 **Data Driven Decision Making**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI630 or BUSM606.

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

0101	Tunay Tunca	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	TuTh 2:00pm - 3:50pm	VMH 1520

BUSM612 **Marketing Management**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI650 or BUSM612.

Analysis of marketing problems and evaluation of specific marketing efforts regarding the organization's products and services, pricing activities, channel selection, and promotion strategies in both domestic and international markets.

0101	Judy Frels	Seats (Total: 65)
	Meets October 23, 2023 - December 15, 2023	
	MW 12:00pm - 1:50pm	VMH 1511

BUSM616 **Managerial Accounting**

(Perm req)

Prerequisite: BUSI610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI611 or BUSM616.

Use of accounting data in corporate planning and control. Cost-volume- profit analysis, budgeting, pricing decisions and cost data, transfer pricing, activity-based management, performance measures, and standard costing.

0101	Darlene Dennison	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	TuTh 4:00pm - 5:50pm	VMH 1520

BUSM621 **Digital Transformation in Business**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Introduces students to the strategic role of digital transformation within businesses, and provides an overview for how major information technologies may be used to inform and transform the firm's strategic, operational, and tactical decisions. Topics discussed in the course include the strategic use of digital technologies to generate sustainable competitive value; the contributions of new forms of technology infrastructure; the evaluation of new technology investments and the resulting ROI; acquiring, managing and governing technological capabilities within the firm; understanding the role of enterprise systems and social technologies within the firm; and the management of disruptive technologies within and outside the firm.

0101	Il-Horn Hann **Meets August 28, 2023 - October 16, 2023** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 2511

BUSM706 **Innovation & Product Development**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMO758P or BUSM706.

Focuses on the development of innovations - new products or new services - from the perspective of a marketer. For an innovation to be successful in the market, it has to be customer-centric: hence, in this course, we study how to develop and bring to market elegant and efficient solutions to strong customer needs. This is a fundamental business challenge, faced while working in a startup or in an established company; when developing a new product or a new service; and when serving customers who are individuals or large corporations.

Cross-listed with BDBA858P. Credit only granted for BUSM706 or BDBA858P.

0101	Yogesh Joshi **Meets October 23, 2023 - December 15, 2023** TuTh 10:00am - 11:50am	Seats (Total: 35) VMH 1520

BUSM708 **Independent Study in Business**

(Perm req)

Independent study for Masters students in Business.

Contact department for information to register for this course.

BUSM715 **Digital Marketing**

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

It has been a quarter century since the commercial use of the Internet and the World Wide Web began and during that time the business landscape has changed at a frenetic pace. Large multinational corporations such as Alphabet/Google, Facebook, Amazon, Alibaba and eBay, unheard of twenty years ago, have emerged as key players in our modern economy. In 2017 holiday season, online sales increased over 16 percent of overall spending online in 2016 with online retail spending in the U.S., the highest percentage since tracking began in 1999. Sales made through mobile devices have increased at a rapid rate to around 22 to 40 percent of all online sales. Corporations now highlight the importance of creating a digital relationship with customers. Moreover, digital technologies and devices such as smartphones, smart products, the Internet of Things, Artificial Intelligence, and deep learning all promise significant transformations of consumers lives in the near future. It is against this backdrop this course seeks to understand how the developments in digital technology are re-shaping the process and the strategy of marketing in the broad space we call digital marketing.

0101	Wendy Moe	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	MW 2:00pm - 3:50pm Contact instructor or department for details.	VMH 2505

BUSM738A **Investment Fund Management; Mayer Fund**

(Perm req)

Provides second-year Master in Business Administration students with the opportunity to apply the skills learned in finance classes to actual investment decisions through management of an investment fund.

Contact department for information to register for this course.

BUSM754 **Competitive and Collaborative Negotiation**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMO714 or BUSM754.

Increase negotiating self-confidence and improve capacity to achieve win-win solutions to organizational problems. Improve effectiveness at finding creative solutions to conflict.

0101	Vijaya Venkataramani	Seats (Total: 42)
	Meets August 28, 2023 - October 16, 2023	
	MW 10:00am - 11:50am Contact instructor or department for details.	VMH 2505

BUSM758J **Special Topics in Business; Financial Management I**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

0101	Richmond Mathews	Seats (Total: 0)
	Meets August 28, 2023 - October 16, 2023	
	TuTh 4:00pm - 5:50pm	VMH 1505

BUSM758N **Special Topics in Business; Managing Change**

Selected advanced topics in the various fields of graduate study in business.

0101	Myeong-Gu Seo	Seats (Total: 42)
	Meets October 23, 2023 - December 15, 2023	
	MW 12:00pm - 1:50pm	VMH 2505

BUSM758P **Special Topics in Business; Financial Management II**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

0101	Richmond Mathews	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	TuTh 2:00pm - 3:50pm	VMH 1520

BUSM788B **Global Business Experience; Doing Business in Brazil**

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

GX01	Paulo Prochno	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	Su 12:00pm - 1:00pm Contact instructor or department for details.	VMH 1303

BUSM788J **Global Business Experience; Doing Business in South Africa**

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

GX01	Bennet Zelner	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	Su 12:00pm - 1:00pm Contact instructor or department for details.	VMH 1330

BUSM788W **Global Business Experience; Doing Business in Asia: Supply Chain Challenges and Opportunities in Asia**

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

GX01	Zhi-Long Chen	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	Su 12:00pm - 1:00pm Contact instructor or department for details.	VMH 1333

BUSO Online MBA Program Fall 2023

BUSO600 **Leadership and Teamwork**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI662, BUSO600 or EMBA656.

Course examines concepts of team-building and leadership which are critical to managerial success. Topics include leadership, decision making, communication and conflict, work motivation, building effective teams, and organizational change and culture.

SO11	Nicole Coomber **Meets August 28, 2023 - October 13, 2023** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO12	Nicole Coomber **Meets August 28, 2023 - October 13, 2023** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO13	Roy Thomason **Meets August 28, 2023 - October 13, 2023** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO14	Roy Thomason **Meets August 28, 2023 - October 13, 2023** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO15	Sheetal Singh **Meets August 28, 2023 - October 13, 2023** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO603 Data Analysis

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Many different skills are required in arriving at informed managerial decisions. Among these are analytical and quantitative skills. Data Analysis is one in a sequence of two courses that seeks to develop these two important skills. More formally, the goals of this course are: to introduce basic statistical techniques: summarizing and presenting data; confidence intervals and hypothesis tests; regression analysis.; to implement these techniques using spreadsheets; and to become active users of data analysis in making managerial decisions.

SO11	Sujin Kim **Meets October 23, 2023 - December 15, 2023** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 31) ONLINE ONLINE
SO12	Xiaojia Guo **Meets October 23, 2023 - December 15, 2023** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 31) ONLINE ONLINE
SO13	Xiaojia Guo **Meets October 23, 2023 - December 15, 2023** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 31) ONLINE ONLINE
SO14	Sujin Kim **Meets October 23, 2023 - December 15, 2023** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO604 **Managerial Economics and Public Policy**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: EMBA681 or BUSO604.

Basic microeconomic principles used by firms, including supply and demand, elasticities, costs, productivity, pricing, market structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

SO11	Rachelle Sampson **Meets August 28, 2023 - October 13, 2023** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 31) ONLINE ONLINE
SO12	Rachelle Sampson **Meets August 28, 2023 - October 13, 2023** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO13	Michael Lipsitz **Meets August 28, 2023 - October 13, 2023** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 29) ONLINE ONLINE
SO14	Michael Lipsitz **Meets August 28, 2023 - October 13, 2023** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO15	Michael Lipsitz **Meets August 28, 2023 - October 13, 2023** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO612 **Marketing Management**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: EMBA757 or BUSO612.

Analysis of marketing problems and evaluation of specific marketing efforts regarding the organization's products and services, pricing activities, channel selection, and promotion strategies in both domestic and international markets.

SO11	Henry Boyd **Meets October 23, 2023 - December 15, 2023** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO12	Henry Boyd **Meets October 23, 2023 - December 15, 2023** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO13	Henry Boyd **Meets October 23, 2023 - December 15, 2023** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO14	Henry Boyd **Meets October 23, 2023 - December 15, 2023** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO616 **Managerial Accounting**

Prerequisite: BUSI610; or BUSO602; or BUSM602. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI611, BUSM616 or BUSO616.

Use of accounting data in corporate planning and control. Cost-volume- profit analysis, budgeting, pricing decisions and cost data, transfer pricing, activity-based management, performance measures, and standard costing.

SO31	Lu Zhang **Meets October 23, 2023 - December 15, 2023** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

SO32	Lu Zhang **Meets October 23, 2023 - December 15, 2023** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO33	Lu Zhang **Meets October 23, 2023 - December 15, 2023** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO624 **Operations Management**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI634, BUSM624 or BUSO624.

Operations management is concerned with efficient and effective design and operation of business processes for delivering products and/or services. Emphasis is given to process analysis and design, capacity management and bottlenecks, waiting lines and the impact of uncertainty in process performance, quality management, lean, six-sigma, and revenue management.

SO31	Suresh Acharya **Meets August 28, 2023 - October 13, 2023** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO32	Suresh Acharya **Meets August 28, 2023 - October 13, 2023** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO33	Suresh Acharya **Meets August 28, 2023 - October 13, 2023** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

SO34	Suresh Acharya	Seats (Total: 25)
	Meets August 28, 2023 - October 13, 2023	
	Th 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO700 **Fundamentals of Business**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

This course introduces students to the language of business. Topics covered include financial accounting, financial management, data models, strategy, leadership and teamwork, and a brief action learning project on innovation. Pre-work includes the DISC assessment, and a requires a passing grade on a spreadsheet pre-work course.

SO91	Mary Beth Furst	Seats (Total: 90)
	Meets August 10, 2023 - September 10, 2023	
	SaSu 8:00am - 8:00pm	Location: TBA
	Contact instructor or department for details.	
	Meets in person 8/19 and 8/20 in College Park.	

BUSO701 **Integrative Business Capstone**

Prerequisite: Students must have completed a minimum of 48 credit hours. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

This is an experiential course that involves an integrative business experience. This experience may be simulated through a software package or through content, speakers and events that are based in a realistic business setting. Students compete in teams. Each team makes decisions in areas such as human resources, compensation packages, geographic expansion through sales offices, debt versus equity financing, manufacturing and inventory management, marketing, including pricing, advertising and product design. The impact of each of these decisions flows through the three financial statements and results in financial outcomes and ratios that measure the success of each team. Additional metrics include stakeholders beyond investors such as employee morale, community engagement, and environmental impact. Students compete for financing and for customers. Multiple presentations are made by students during the simulation to explain their strategy, their tactics, and their planned investments.

SO92	Cristian Dezso **Meets October 28, 2023 - October 29, 2023** SaSu 8:00am - 8:00pm Class time/details on ELMs *Meet virtually on 10/28 and 10/29.*	Seats (Total: 0) ONLINE ONLINE

BUSO711 **Executive Powers and Negotiation**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMO714, BUSM754 or BUSO711.

Increase negotiating self-confidence and improve capacity to achieve win-win solutions to organizational problems. Improve effectiveness at finding creative solutions to conflict.

SO31	Vijaya Venkataramani **Meets August 28, 2023 - October 13, 2023** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO32	Vijaya Venkataramani **Meets August 28, 2023 - October 13, 2023** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO33	Rellie Rozin **Meets August 28, 2023 - October 13, 2023** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO34	Gosia Langa Basit **Meets August 28, 2023 - October 13, 2023** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE

BUSO731 **Social Media and Web Analytics**

Prerequisite: BUSM612; or BUSO612; or BUSI650. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758O, BUSO731 or BUSM716.

Examines the process of developing, implementing, and analyzing strategies for successfully marketing a variety of existing and potential products and services using electronic media. Besides well-established Internet marketing tools such as e-mail, search engines and display advertising, a substantial part of the course is dedicated to understanding social media, analyzing successful social media strategies, and tracking their effectiveness. The course offers hands-on experience with many popular as well as emerging techniques unique to electronic media. Special attention is given to metrics appropriate for the new media.

SO51	Siva Viswanathan **Meets October 23, 2023 - December 15, 2023** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO52	Siva Viswanathan **Meets October 23, 2023 - December 15, 2023** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE

BUSO751 **Supply Chain Risk Management**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM734, BUSM784 or BUSO751.

Supply chain managers are facing an increasingly volatile operating environment, with constant danger of trading community disruption from business, social and environmental risks. Students are provided with a working knowledge of both the core techniques of supply chain risk assessment and mitigation; as well as best practices in establishing formal corporate supply chain risk management programs. A semester-long X-Treme Supply Chain Simulation will enable students to gain hands-on experience in navigating a computer company through a complex and risky four quarters of global business operations.

SO51	Hongyi Zhang **Meets October 23, 2023 - December 15, 2023** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE

BUSO758A **Special Topics in Business; Marketing Analytics**

Selected advanced topics in the various fields of graduate study in business.

SO51	Yogesh Joshi	Seats (Total: 22)
	Meets October 23, 2023 - December 15, 2023	
	W 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO758G **Special Topics in Business; Financial Restructuring**

Selected advanced topics in the various fields of graduate study in business.

SO51	James Seward	Seats (Total: 22)
	Meets October 23, 2023 - December 15, 2023	
	W 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO788B **Business Consulting; Doing Business in Brazil**

Selected advanced topics in the various fields of graduate study in business.

GX01	Paulo Prochno	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	Su 12:00pm - 1:00pm	VMH 1303
	Contact instructor or department for details.	

BUSO788J **Business Consulting; Doing Business in South Africa**

Selected advanced topics in the various fields of graduate study in business.

GX01	Bennet Zelner	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	Su 12:00pm - 1:00pm	VMH 1330
	Contact instructor or department for details.	

BUSO788W **Business Consulting; Doing Business in Asia: Supply Chain Challenges and Opportunities in Asia**

Selected advanced topics in the various fields of graduate study in business.

GX01	Zhi-Long Chen	Seats (Total: 0)
	Meets October 23, 2023 - December 15, 2023	
	Su 12:00pm - 1:00pm	VMH 1333
	Contact instructor or department for details.	

CBMG Cell Biology & Molecular Genetics Fall 2023

CBMG626 **Quantitative Modeling for Experimental Biologists**

Prerequisite: BIOL705; or permission of the instructor . Recommended: Some familiarity with programming (NetLogo, R and/or Python) is helpful.

A toolkit for understanding processes through the generation of useful models constrained by data. Topics explored include Simulations, Information Theory, Dynamical Systems, and Control Theory.

0101	Antony Jose	Seats (Total: 15)
	Meets August 28, 2023 - October 17, 2023	
	TuTh 1:00pm - 2:50pm	BRB 2210

CBMG688C **Special Topics in Cell Biology and Molecular Genetics**

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

Jointly offered with BSCI420. Credit only granted for BSCI420 or CBMG688 C.

0101	Norma Andrews	Seats (Total: 70)
	TuTh 12:30pm - 1:45pm	MCB 1207

CBMG688D **Special Topics in Cell Biology and Molecular Genetics; Genetics: Cell Biology I - Structure and Function**

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Sougata Roy, Wenxia Song	Seats (Total: 30)
	Meets October 18, 2023 - December 11, 2023	
	TuTh 4:00pm - 6:00pm	HBK 0105

CBMG688J **Special Topics in Cell Biology and Molecular Genetics; Genetics: Immunology and Host Defense**

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	David Mosser, Roy Mariuzza	Seats (Total: 12)
	Meets August 28, 2023 - October 17, 2023	
	MW 4:00pm - 6:00pm	BRB 3101

CBMG688K **Special Topics in Cell Biology and Molecular Genetics; Genetics: Molecular Virology**

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Margaret Scull, Jeffrey DeStefano **Meets October 18, 2023 - December 11, 2023** MW 3:00pm - 5:00pm	Seats (Total: 20) BRB 1210	

CBMG688P **Special Topics in Cell Biology and Molecular Genetics; Programming for Biology**

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Najib El-Sayed, Stephen Mount **Meets October 18, 2023 - December 11, 2023** TuTh 9:00am - 10:50am	Seats (Total: 25) HJP 2226	

CBMG688W **Special Topics in Cell Biology and Molecular Genetics; Principles of Microscopy**

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Amy Beaven **Meets October 18, 2023 - December 11, 2023** Tu 8:00am - 9:00am TBA	Seats (Total: 10) MCB 1123 MCB 0107	 Lab

CBMG699 **Special Problems in Cell Biology and Molecular Genetics**

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

Contact department for information to register for this course.

CBMG699D **Special Problems in Cell Biology and Molecular Genetics; Molecular Genetics: Bioinformatics and Computation Biology**

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

Contact department or instructor for details.

0101	Stephen Mount W 12:00pm - 1:00pm	Seats (Total: 20) BRB 1103	

CBMG699K **Special Problems in Cell Biology and Molecular Genetics; Biological Sciences Teaching and Learning in Higher Education**

(Perm req)

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

Cross-listed with BIOL608K, CHEM608K, and ENTM699K. Credit will be grant edfor only one of the following: BIOL608K, CBMG699K, CHEM608K, or ENTM699K.

0101	Gili Ad-Marbach	Seats (Total: 12)	
	W 11:00am - 12:40pm	BPS 1208	

CBMG699X **Special Problems in Cell Biology and Molecular Genetics; Host Pathogen Interactions**

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	David Mosser	Seats (Total: 20)	
	F 3:00pm - 4:00pm	ONLINE	

CBMG799 **Masters Thesis Research**

Master's Thesis Research in Cell Biology and Molecular Genetics.

Contact department for information to register for this course.

CBMG898 **Pre-Candidacy Research**

Pre-candidacy Research.

Contact department for information to register for this course.

CBMG899 **Doctoral Dissertation Research**

(Perm req)

Doctoral Dissertation Research.

Contact department for information to register for this course.

CCJS Criminology and Criminal Justice Fall 2023

CCJS100 **Introduction to Criminal Justice**

Introduction to the administration of criminal justice in a democratic society, with emphasis on the theoretical and historical development of law enforcement. The principles of organization and administration for law enforcement; functions and specific activities; planning and research; public relations; personnel and training; inspection and control; direction; policy formulation.

0101	Justine Madoo	Seats (Total: 30)	
	MW 10:00am - 10:50am	LEF 2205	
	M 2:00pm - 2:50pm	SKN 1115	Discussion

0102	Justine Madoo MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 30) LEF 2205 ASY 3211	Discussion
0103	Justine Madoo MW 10:00am - 10:50am M 12:00pm - 12:50pm	Seats (Total: 30) LEF 2205 ASY 3215	Discussion
0104	Justine Madoo MW 10:00am - 10:50am M 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 LEF 1220	Discussion
0105	Justine Madoo MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 TYD 2109	Discussion
0106	Justine Madoo MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 30) LEF 2205 ASY 3207	Discussion
0107	Justine Madoo MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 30) LEF 2205 KNI 1105	Discussion
0108	Justine Madoo MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 TWS 1320	Discussion
0201	Justine Madoo MW 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 30) LEF 2205 HBK 0103	Discussion
0202	Justine Madoo MW 11:00am - 11:50am Tu 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 TWS 1107	Discussion
0203	Justine Madoo MW 11:00am - 11:50am Tu 12:30pm - 1:20pm	Seats (Total: 30) LEF 2205 SQH 1101	Discussion

0204	Justine Madoo MW 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 30) LEF 2205 TWS 1310	Discussion
0205	Justine Madoo MW 11:00am - 11:50am Th 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 LEF 0135	Discussion
0206	Justine Madoo MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 30) LEF 2205 TWS 0223	Discussion
0207	Justine Madoo MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 30) LEF 2205 TWS 0201	Discussion
0208	Justine Madoo MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 30) LEF 2205 TYD 2106	Discussion

CCJS105 **Introduction to Criminology**

Criminal behavior and the methods of its study; causation; typologies of criminal acts and offenders; punishment, correction and incapacitation; prevention of crime.

0101	Brett Lacey MW 10:00am - 10:50am M 9:00am - 9:50am	Seats (Total: 30) KEY 0106 ASY 3215	Discussion
0102	Brett Lacey MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 30) KEY 0106 TWS 0201	Discussion
0103	Brett Lacey MW 10:00am - 10:50am M 12:00pm - 12:50pm	Seats (Total: 30) KEY 0106 KNI 1103	Discussion
0104	Brett Lacey MW 10:00am - 10:50am M 1:00pm - 1:50pm	Seats (Total: 30) KEY 0106 LEF 1201	Discussion

0105	Brett Lacey MW 10:00am - 10:50am W 9:00am - 9:50am	Seats (Total: 30) KEY 0106 ASY 3215	Discussion
0106	Brett Lacey MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 30) KEY 0106 TWS 0236	Discussion
0107	Brett Lacey MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 30) KEY 0106 KNI 1103	Discussion
0108	Brett Lacey MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 30) KEY 0106 LEF 1220	Discussion
0201	Brett Lacey TuTh 12:30pm - 1:20pm Tu 9:30am - 10:20am	Seats (Total: 30) LEF 2205 KEY 0125	Discussion
0202	Brett Lacey TuTh 12:30pm - 1:20pm Tu 8:30am - 9:20am	Seats (Total: 30) LEF 2205 KEY 0102	Discussion
0203	Brett Lacey TuTh 12:30pm - 1:20pm Tu 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 ARC 1101	Discussion
0204	Brett Lacey TuTh 12:30pm - 1:20pm Tu 3:00pm - 3:50pm	Seats (Total: 30) LEF 2205 EDU 3315	Discussion
0205	Brett Lacey TuTh 12:30pm - 1:20pm Th 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 SQH 1101	Discussion
0206	Brett Lacey TuTh 12:30pm - 1:20pm Th 11:00am - 11:50am	Seats (Total: 30) LEF 2205 SQH 2120	Discussion

0207	Brett Lacey TuTh 12:30pm - 1:20pm Th 9:30am - 10:20am	Seats (Total: 30) LEF 2205 TWS 0205	Discussion
0208	Brett Lacey TuTh 12:30pm - 1:20pm Th 3:00pm - 3:50pm	Seats (Total: 30) LEF 2205 TYD 2111	Discussion
FC01	Madeline Romm MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) TWS 1107	

CCJS200 **Statistics for Criminology and Criminal Justice**

(Perm req)

Prerequisite: CCJS100 or CCJS105; and 1 course with a minimum grade of C- from (STAT100, MATH107, MATH111, MATH120, MATH130, MATH135, MATH140). Restriction: Must be in Criminology and Criminal Justice program; or permission of BSOS-Criminology & Criminal Justice department.

Introduction to descriptive and inferential statistics, graphical techniques, and the computer analysis of criminology and criminal justice data. Basic procedures of hypothesis testing, correlation and regression analysis, and the analysis of continuous and binary dependent variables. Emphasis upon the examination of research problems and issues in criminology and criminal justice.

0201	Sarah Tahamont TuTh 9:30am - 10:45am Th 11:00am - 11:50am	Seats (Total: 30) LEF 2205 TWS 1310	Discussion
0202	Sarah Tahamont TuTh 9:30am - 10:45am Th 12:30pm - 1:20pm	Seats (Total: 30) LEF 2205 SQH 1103	Discussion
0203	Sarah Tahamont TuTh 9:30am - 10:45am Th 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 SQH 2120	Discussion
0204	Sarah Tahamont TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 30) LEF 2205 TWS 0201	Discussion

0205	Sarah Tahamont TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 30) LEF 2205 ASY 3203	Discussion
0206	Sarah Tahamont TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 TWS 0205	Discussion

CCJS225 **Responses to Violence**

What are the dimensions of violence in the United States and worldwide, and how has humanity responded to violence? Conflict is unfortunately resolved through violence in a number of settings. It ranges from interpersonal to international in its scope. This course investigates the strengths and weaknesses of a number of resolutions to reducing violence over the course of history using both state centered and informal control.

0201	Thomas Abt W 2:00pm - 4:30pm	Seats (Total: 50) SYM 0200
0301	Jessica Morabito TuTh 11:00am - 12:15pm	Seats (Total: 50) SQH 1117

CCJS230 **Criminal Law in Action**

(Perm req)

Prerequisite: CCJS100.

Law as one of the methods of social control. Criminal law: its nature, sources and types; theories and historical developments. Behavioral and legal aspects of criminal acts. Classification and analysis of selected criminal offenses.

0101	Cortney Fisher TuTh 3:30pm - 4:45pm	Seats (Total: 100) SQH 1120
0201	Russell Hamill W 4:00pm - 6:30pm	Seats (Total: 100) TWS 0310

CCJS300 **Criminological and Criminal Justice Research Methods**

(Perm req)

Prerequisite: CCJS100 and CCJS105; and (PSYC200, CCJS200, ECON321, BMGT230, or SOCY201).

Introduction to the formulation of research questions covering crime and justice, research designs, data collection, and interpretation and reporting in criminological and justice-system settings.

0101	Laure Brooks MWF 9:00am - 9:50am	Seats (Total: 48) LEF 2166
0201	Laure Brooks MWF 11:00am - 11:50am	Seats (Total: 48) LEF 2166
0301	Alan Lehman TuTh 12:30pm - 1:45pm	Seats (Total: 60) TWS 0320
0401	Alan Lehman TuTh 11:00am - 12:15pm	Seats (Total: 60) TWS 0320
ESG1	Wendy Stickle W 9:30am - 12:00pm	Seats (Total: 40) BLD3 3240
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS301 **Fundamentals in Criminal Justice**

Restriction: Must be enrolled at The Universities at Shady Grove; and must be in the Criminal Justice minor; or by permission of department; and must not be in the Criminology and Criminal Justice major.

Provides an overview of the three major components of the American criminal justice system: police, courts, and corrections. Each component will be explored in its development over time as well as various issues surrounding each component. This course will also cover important issues that are relevant to current debates including race, reentry, technology and crime, juvenile justice, and future directions for criminal justice.

ESG1	Cortney Fisher Class time/details on ELMs	Seats (Total: 40) ONLINE
	Open to all UMD students at USG who are not CCJS majors. Contact ccjsusg@umd.edu for permission to register.	

CCJS310 **Criminal Investigations**

Prerequisite: CCJS100 and CCJS230.

An introduction to modern methods used in detection, investigation, and solution of crime. Students will be taught basic and advanced investigative techniques utilized by law enforcement agencies. Analysis of actual cases will be used to demonstrate practical uses of these techniques.

ESG1	Nicole Romeiser Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 40) BLD3 2225 ONLINE
	Restricted to students in the Criminology & Criminal Justice program and the Biological Sciences program at USG.	

CCJS318C **Special Topics in Criminology & Criminal Justice; Public Speaking for Criminal Justice Professionals**

(Perm req)

Special topics in various aspects of the field of criminology and criminal justice will be covered.

Prerequisites: CCJS100 or CCJS105. Restriction: Must be a major within the BSOS-Criminology & Criminal Justice department.

0101	Thomas Mauriello M 2:00pm - 4:30pm	Seats (Total: 30) MMH 2401

CCJS318G **Special Topics in Criminology & Criminal Justice; Introduction to Forensic Science**

Special topics in various aspects of the field of criminology and criminal justice will be covered.

ESG1	Jennifer Karschner W 5:00pm - 7:30pm	Seats (Total: 24) BLD2 3052
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS320 **Introduction to Criminalistics**

(Perm req)

Prerequisite: CCJS100 and CCJS230.

An introduction to modern methods used in the detection, investigation and solution of crimes. Practical analysis of evidence in a crime laboratory, including fingerprints and other impressions, firearms ID and ballistics, hairs and fibers, document examination, and use of polygraph.

Students must pay a $53.00 lab fee.

0101	Thomas Mauriello Class time/details on ELMs M 10:00am - 12:00pm	Seats (Total: 24) ONLINE MMH 2401	 Lab
0201	Danielle O'Neill Class time/details on ELMs Tu 3:30pm - 5:30pm	Seats (Total: 24) ONLINE MMH 2401	 Lab

0301	Danielle O'Neill Class time/details on ELMs Tu 6:00pm - 8:00pm	Seats (Total: 24) ONLINE MMH 2401	 Lab

CCJS325 **Slavery in the Twenty First Century: Combating Human Trafficking**

What is human trafficking and how do we stop it? An introduction to the trafficking of human beings in its historical, legal, economic, political and social contexts. Scope of the global problem, different forms of human trafficking, and regional trends and practices. Roles of government, the international community and individual actors. Strategies to combat trafficking.

0401	Jessica Morabito TuTh 9:30am - 10:45am	Seats (Total: 60) TWS 0310

CCJS330 **Contemporary Criminological Issues**

Prerequisite: CCJS100 and CCJS105.

Topics may include career criminals, prison overcrowding, prediction, ecological studies of crimes, family and delinquency, entrepreneurship in criminal justice and criminology, and similar criminological problems.

ESG1	Edward Pallas Th 2:00pm - 4:30pm *Restricted to students in the Criminology & Criminal Justice Program at USG.*	Seats (Total: 40) BLD3 3240

CCJS332 **Major Transitions: From Undergraduate to Professional**

(Perm req)

Restriction: Must be in Criminology and Criminal Justice program; and sophomore standing or higher.

This course is designed to assist criminology and criminal justice students explore career opportunities. Topics will include: graduate school, law school, career opportunities in federal, state, local, and public agencies, resume writing, and internships.

0101	Shannon Sibel W 12:00pm - 12:50pm	Seats (Total: 30) ASY 3203

CCJS340 **Policing**

(Perm req)

Prerequisite: CCJS100.

Critical issues relating to policing. Topics include police discretion, role of police, use of force, misconduct, police research, administration, personnel, and etc.

0201	David Mitchell M 5:00pm - 7:30pm	Seats (Total: 75) TWS 1100
0301	Michael Weller TuTh 3:30pm - 4:45pm	Seats (Total: 60) SYM 0200
ESG1	Nicole Romeiser Tu 11:00am - 1:30pm *Restricted to students in the Criminology & Criminal Justice Program at USG.*	Seats (Total: 40) BLD3 4212

CCJS342 **Corrections**

(Perm req)

Prerequisite: CCJS100. Restriction: Must be in a major within the BSOS-Criminology & Criminal Justice department. Credit only granted for: CCJS342 or CCJS452.

Examination of the American correctional system. Identification of historical and contemporary themes, issues, and trends. Evaluation of correctional policies, practices and research.

0101	Jessica Morabito Class time/details on ELMs	Seats (Total: 60) ONLINE
0401	Rachel Ellis TuTh 11:00am - 12:15pm	Seats (Total: 60) SQH 1120

CCJS345 **Courts and Sentencing**

(Perm req)

Prerequisite: CCJS100. Restriction: Must be in a major within the BSOS-Criminology & Criminal Justice department.

Contemporary issues in the American court system such as prosecution, sentencing and punishment. Theoretical perspectives on courtroom decision-making integrated with empirical research. Courts and sentencing processes, including initial charging, pretrial detention and final sentencing outcomes. Innovations in courts and sentencing.

0101	Robert Stewart MW 2:00pm - 3:15pm	Seats (Total: 60) TWS 1310
0401	Cortney Fisher TuTh 2:00pm - 3:15pm	Seats (Total: 75) SQH 1120

ESG1	Carlotta Woodward	Seats (Total: 40)	
	M 12:30pm - 1:45pm Class time/details on ELMs	BLD3 2225 ONLINE	Discussion
	Restricted to students in the Criminology & Criminal Justice Program at USG.		

CCJS352 **Drugs and Crime**

(Perm req)

Prerequisite: CCJS100.

An analysis of the role of criminal justice in the control of drug use and abuse.

ESG1	Alan Drew	Seats (Total: 40)
	Tu 9:30am - 12:00pm	BLD3 2226
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS358B **Special Topics in Study Abroad III; Criminology in Scandanavia**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CCJS358E **Special Topics in Study Abroad III; Drugs and Drug Prevention in Central Europe**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CCJS359 **Field Training in Criminology and Corrections**

(Perm req)

Supervised field training in public or private social agencies. Group meetings, individual conferences and written program reports.

Prerequisites: CCJS 105 or CRIM 220; and CCJS 350 or CRIM 450; and permission of department. For majors only.

Contact department for information to register for this course.

CCJS360 **Victimology**

Prerequisite: CCJS105.

Overview of the history and theory of victimology. Analysis of victimization patterns with special emphasis on types of victims and crimes. The interaction between victims of crime and the criminal justice system with respect to the role of the victim and the services offered to the victim.

ESG1	Cortney Fisher	Seats (Total: 40)
	M 9:30am - 12:00pm	BLD3 3240
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS386 **Experiential Learning**

(Perm req)

Restriction: Permission of BSOS-Criminology & Criminal Justice department; and junior standing or higher.

Contact department for information to register for this course.

CCJS388H **Independent Reading Course in Criminology and Criminal Justice**

(Perm req)

Designed for the needs of honor students in criminology and criminal justice.

0101	Wade Jacobsen M 3:00pm - 5:30pm	Seats (Total: 20) WDS 1131

CCJS389H **Independent Research in Criminology and Criminal Justice**

(Perm req)

Independent Research for CCJS Departmental Honors students.

Contact department for information to register for this course.

CCJS398 **Law Enforcement Field Training**

(Perm req)

Supervised, structured and focused field training in law enforcement agencies.

Prerequisite: junior standing. For majors only.

Contact department for information to register for this course.

CCJS399 **Independent Study in Criminology and Criminal Justice**

(Perm req)

Integrated reading or research under direction and supervision of a faculty member.

Prerequisite: written consent of faculty under whose direction the study is to be performed, and at least twelve hours of CCJS credits.

Contact department for information to register for this course.

CCJS418C **Seminar in Criminology and Criminal Justice; Gender and Crime**

(Perm req)

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS100, CCJS105, and CCJS300.

0101	Rachel Ellis TuTh 12:30pm - 1:45pm	Seats (Total: 50) SQH 1119

CCJS418D **Seminar in Criminology and Criminal Justice; Evolving Legal Issues**

(Perm req)

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisite: CCJS100 and CCJS230.

0101	David Salem W 6:00pm - 8:30pm	Seats (Total: 50) SQH 1117

CCJS418E **Seminar in Criminology and Criminal Justice; Applications of Data Science in Criminology**

(Perm req)

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisite: CCJS100, CCJS105, CCJS200 and CCJS300. Restriction: Permission of department.

0101	Zubin Jelveh Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 50) ONLINE SKN 0104

CCJS418P **Seminar in Criminology and Criminal Justice; Marijuana, Law and Society**

(Perm req)

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS100 and CCJS105.

0101	Alan Lehman TuTh 2:00pm - 3:15pm	Seats (Total: 50) TWS 0320

CCJS440 **Security Administration**

Prerequisite: CCJS100 and CCJS340. Credit only granted for: CCJS440 or CCJS498Z. Formerly: CCJS498Z.

Designed to introduce students to the complex issues of Security Administration and the critical terrorism issues facing the nation. Emphasis is placed on understanding the historical and contemporary issues effecting U.S. Counterterrorism Policy. It also explores the challenges facing today's security administrators including: ethics, classified information, intelligence, terrorist organizations and incidents, physical and personnel security, transportation and border security issues.

ESG1	Richard Harris Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 40) BLD3 2225 ONLINE	 Discussion

Restricted to students in the Criminology & Criminal Justice Program at USG.

CCJS450 **Advanced Juvenile Delinquency**

(Perm req)

Prerequisite: CCJS105 and CCJS300. Credit only granted for: CCJS350 or CCJS450.

Examination of juvenile delinquency in the United States. Nature and extent of juvenile delinquency, historical approaches, sociological and criminological theories and research, social contexts including the institutions of families, schools, and peers, and social responses. Prevention, punishment, and treatment programs, both within and outside of the juvenile justice and criminal justice systems.

0101	Justine Madoo MWF 12:00pm - 12:50pm	Seats (Total: 50) TYD 1102
0201	Jessica Morabito Class time/details on ELMs	Seats (Total: 60) ONLINE

CCJS451 **Crime and Delinquency Prevention**

(Perm req)

Prerequisite: CCJS105 and CCJS300.

Methods and programs in prevention of crime and delinquency.

0101	Brett Lacey MW 2:00pm - 3:15pm	Seats (Total: 60) SQH 1119
0201	Brett Lacey TuTh 9:30am - 10:45am	Seats (Total: 50) ARC 1101
ESG1	Thomas Alexander W 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 40) ONLINE ONLINE
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS454 **Contemporary Criminological Theory**

(Perm req)

Prerequisite: CCJS300 and CCJS105.

Examination of the main theoretical accounts that explain the underlying causes of criminal behaviors. Explore how individual choices, socialization experiences, biological factors and social structure affect criminal behaviors.

0301	Kathryn Kozey Class time/details on ELMs	Seats (Total: 50) ONLINE

CCJS461 **Psychology of Criminal Behavior**

Prerequisite: CCJS105 and CCJS300.

Biological, environmental, and personality factors which influence criminal behaviors. Biophysiology and crime, stress and crime, maladjustment patterns, psychoses, personality disorders, aggression and violent crime, sex-motivated crime and sexual deviations, alcohol and drug abuse, and criminal behavior.

ESG1	Robin Shusko	Seats (Total: 40)
	M 5:00pm - 6:15pm Class time/details on ELMs	ONLINE ONLINE
	Restricted to students in the Criminology & Criminal Justice program and the Biological Sciences program at USG.	

CCJS489H **Honors Thesis Research**

(Perm req)

Designed for students completing their honors thesis.

0101	Bianca Bersani	Seats (Total: 20)
	Tu 3:30pm - 6:00pm	WDS 1114

CCJS498I **Selected Topics in Criminology and Criminal Justice; Digital Forensics**

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	John Conroy, Michael Yu	Seats (Total: 30)
	W 2:00pm - 4:30pm	BLD3 2216
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS498K **Selected Topics in Criminology and Criminal Justice; Child Abuse Investigations**

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Louis Morlier	Seats (Total: 40)
	Tu 3:30pm - 6:00pm	BLD3 2225
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS498P **Selected Topics in Criminology and Criminal Justice; Truth and Justice in the Disinformation Era**

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Steve Sin	Seats (Total: 40)	
	Th 9:30am - 12:00pm	BLD3 2225	
	Restricted to students in the Criminology & Criminal Justice Program at USG.		

CCJS498V **Selected Topics in Criminology and Criminal Justice; Use of Force**

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Kristina Hedgepeth	Seats (Total: 40)	
	M 12:30pm - 1:45pm Class time/details on ELMs	BLD3 2226 ONLINE	 Discussion
	Restricted to students in the Criminology & Criminal Justice Program at USG.		

CCJS498Z **Selected Topics in Criminology and Criminal Justice; A Matter of Life and Death: Criminal Sentencing Issues**

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	James Trusty	Seats (Total: 40)	
	Tu 6:30pm - 9:00pm	BLD3 4212	
	Restricted to students in the Criminology & Criminal Justice Program at USG.		

CCJS600 **Criminal Justice**

Restriction: Must be in one of the following programs (Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral)) ; or permission of BSOS-Criminology & Criminal Justice department. Formerly: CJUS600.

Current concept of criminal justice in relationship to other concepts in the field. Historical perspective. Criminal justice and social control. Operational implications. Systemic aspects. Issues of evaluation.

0101	Brian Johnson	Seats (Total: 20)	
	W 4:00pm - 6:45pm	LEF 2165E	

CCJS604 **Policy Analysis Project**

(Perm req)

An application of statistical and conceptual tools to criminal justice data in the student's area of concentration, resulting in a paper reporting the conceptualization, analytic methods and results. The topic of the independent study will be chosen through individual consultation with the instructor.

Contact department for information to register for this course.

CCJS620 **Fundamentals of Criminological Research**

Credit only granted for: CCJS498D or CCJS620. Formerly: CCJS498D.

Designed to help criminology students understand and apply three important components of statistics: decriptive statistics (including probability theory), fundamentals of statistical inference, and regression analysis. Course assumes familiarity with basic descriptive statistics. The emphasis of the classes on descriptive statistics is the calculation and interpretation of summary statistical measures for describing raw data. Covers the basic rules of probability and different probabilistic processes that could describe criminal activity. The sessions on fundamentals of statistical inferences are designed to provide background for executing and interpreting hypothesis tests and confidence intervals. The latter portion of the course focuses on regession analysis. Uses the statistical software, Stata.

0101	Sarah Tahamont	Seats (Total: 35)
	Tu 4:00pm - 6:45pm	LEF 2165E

CCJS631 **Ethics in Criminal Justice**

Restriction: Must be in one of the following programs: Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral); Sociology (Master's); Sociology (Doctoral); or permission from BSOS-Criminology & Criminal Justice department.

Provides students with an overview of the major ethical perspectives, which are typically used to inform and justify the workings of the criminal justice system. The course draws on a number of case studies in order to introduce students to a broad range of ethical dilemmas, and students develop and hone a decision-making process designed to resolve such dilemmas.

PLL1	Lester Andrist	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

CCJS632 **Making Sense of Criminal Justice Methods and Statistics**

Restriction: Must be in one of the following programs: Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral); Sociology (Master's); Sociology (Doctoral); Master of Professional Studies in Public Safety Leadership and Administration (MPLA); Graduate Certificate in Criminal Justice Administration (Z130); or permission from BSOS-Criminology & Criminal Justice department.

Teaches students how to better understand research that relies on statistics and to then apply this understanding to common criminal justice problems. The course will introduce basic statistical concepts that are necessary for analyzing crime and evaluating criminal justice programs and policies. Students will learn to interpret and assess the quality of reports that present crime trends, descriptive statistics, correlations, data mining efforts, geo-spatial and social media analytics, risk analysis for repeat offenders, hot spots of crime, and experimental research. By the end of the semester, students will learn to assess critically the quality of published research and evaluate its implications for criminal justice policy.

PLL1	Lester Andrist	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

CCJS650 **Research Practicum**

Provides the opportunity for students to develop and complete a research project, which will provide information on research proficiency for the determination of advancement to doctoral candidacy

0101	Min Xie	Seats (Total: 20)
	M 4:00pm - 6:45pm	LEF 2207

CCJS652 **Seminar in Juvenile Delinquency**

Formerly: CRIM652.

Analysis of delinquency and its control.

0101	Robert Brame	Seats (Total: 20)
	M 4:00pm - 6:45pm	LEF 2165E

CCJS654 **History of Criminological Thought**

Prerequisite: CCJS454; or students who have taken courses with comparable content may contact the department. Formerly: CRIM654.

A study of the development of criminological thought from antiquity to the present.

0101	Wade Jacobsen	Seats (Total: 20)
	Tu 4:00pm - 6:45pm	LEF 2207

CCJS670 **Race, Crime, and Criminal Justice**

Provides an historical overview of the operation and evolution of the criminal justice system and the impact of race. How race affects definitions of crime and criminality, the workings of the criminal justice system, the development of criminological theory, and the role of criminal justice ethics in the study of race and crime will be considered.

0101	Brooklynn Hitchens	Seats (Total: 20)
	Tu 4:00pm - 6:45pm	TYD 2106

CCJS699 **Special Criminological Problems**

Supervised study of a selected problem in the field of criminal justice.

Contact department for information to register for this course.

CCJS699C **Special Criminological Problems; Victimization**

Supervised study of a selected problem in the field of criminal justice.

0101	Min Xie	Seats (Total: 20)
	Th 4:00pm - 6:45pm	LEF 1220

CCJS710 **Advanced Statistics Methods - Limited Dependent Variables**

Prerequisite: Must have completed an approved doctoral level statistics course. Formerly: CRIM710.

Application of advanced data analysis strategies to criminological and criminal justice problems, with specific focus on limited dependent variables.

0101	Robert Brame	Seats (Total: 15)
	Th 4:00pm - 6:45pm	LEF 2165E

CCJS720 **Criminal Justice System Planning: Policy Analysis for Crime Control**

Prerequisite: Must have completed 1 course in research methodology; and 1 course in CCJS. Formerly: CJUS720.

System theory and method; examination of planning methods and models based primarily on a systems approach to the operations of the criminal justice system.

0101	Greg Midgette	Seats (Total: 20)
	W 4:00pm - 6:45pm	LEF 1171

CCJS799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

CCJS898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

CCJS899 **Doctoral Dissertation Research**

(Perm req)

Doctoral dissertation research in criminal justice and criminology.

Contact department for information to register for this course.

CHBE Chemical and Biomolecular Engineering Fall 2023

CHBE100 **Exploring ChBE**

(Perm req)

Prerequisite: Permission of instructor; and permission of ENGR-Chemical & Biomolecular Engineering department. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department.

Overview of the specializations and career paths available in chemical and biomolecular engineering. Academic planning, policies and resources will be covered including introduction to undergraduate research, study abroad, internship and co-op opportunities as well as chemical engineering student groups. A peer mentoring program will enable students to interact with successful upper-class chemical engineering students and build their chemical engineering peer network.

0101	Ganesh Sriram, Kristen Fawole	Seats (Total: 25)	
	W 3:00pm - 3:50pm	AJC 2119	

CHBE250 **Computer Methods in Chemical Engineering**

(Perm req)

Prerequisite: CHBE101; and must have completed or be concurrently enrolled in MATH241. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE250 or ENCH250. Formerly: ENCH250.

Algorithm development and application of software to the analysis of chemical engineering problems. File management and editing, graphics and numerical methods. Use of spreadsheets, statistics/math software and process simulators for the design of chemical process equipment.

0101	Hannah Zierden	Seats (Total: 80)	
	MWF 10:00am - 10:50am	CHE 2108	
	M 9:00am - 9:50am	CHE 2108	Discussion

CHBE301 **Chemical and Biomolecular Engineering Thermodynamics I**

(Perm req)

Prerequisite: CHBE101; and must have completed or be concurrently enrolled in CHBE250 and MATH241. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: ENCH300 or CHBE301. Formerly: ENCH300.

Principles of thermodynamics and their application to engineering problems. First and second laws of thermodynamics, properties of gases, liquids and solids, phase equilibrium, flow and non-flow systems, energy conversion, production of work from heat, thermodynamic analysis of processes, equilibrium stage operations and the thermodynamics of chemically reacting systems.

0101	Peter Kofinas	Seats (Total: 39)	
	TuTh 2:00pm - 3:15pm	AJC 2132	
	F 9:00am - 9:50am	JMP 2202	Discussion

CHBE333 **Chemical Engineering Seminar**

(Perm req)

Restriction: Junior standing; and must be in a major within ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE333 or ENCH333. Formerly: ENCH333.

To develop oral communication skills through a series of class presentations of current chemical engineering topics.

0102	Nam Sun Wang M 11:00am - 11:50am	Seats (Total: 15) AJC 2119	
0103	Nam Sun Wang W 1:00pm - 1:50pm	Seats (Total: 15) CHE 2116	

CHBE369 **Teaching Experiences in Chemical Engineering**

(Perm req)

Students will obtain pedagogical experience by assisting with the teaching of undergraduate courses in Chemical and Biomolecular Engineering.

Contact department for information to register for this course.

CHBE410 **Statistics and Design of Experiments**

(Perm req)

Prerequisite: Minimum grade of C- in CHBE250, MATH241, and MATH246. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE410 or ENCH476. Formerly: ENCH476.

An introduction to probability, statistics, and design of experiments for chemical engineers.

0101	Juan Carlos Vega-Vila MWF 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 80) CHE 2110 CHE 2110	 Discussion

CHBE422 **Chemical and Biomolecular Engineering Transport Phenomena I**

(Perm req)

Prerequisite: Minimum grade of C- in CHBE101, CHBE250, MATH241, and MATH246. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE422 or ENCH422. Formerly: ENCH422.

Principals of fluid dynamics as applied to model development and process design. Mass, momentum and energy conservation. Statics and surface tension. Equation of Continuity and Navier-Stokes Equation with application to laminar flow. Dimensional analysis. Macroscopic balances, Bernoulli Equation and friction factors with application to turbulent flow.

0101	Panagiotis Dimitrakopoulos	Seats (Total: 65)	
	TuTh 3:30pm - 4:45pm	CHE 2108	
	F 1:00pm - 1:50pm	CHE 2108	Discussion

CHBE437 **Chemical and Biomolecular Engineering Laboratory**

(Perm req)

Prerequisite: CHBE424, CHBE426, and CHBE440. Restriction: Must be in a major within ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE437 or ENCH437. Formerly: ENCH437.

Application of chemical engineering process and unit operation principals in small-scale semi-commercial equipment. Data from experimental observations are used to evaluate performance and efficiency of operations. Emphasis on correct presentation of results inreport form.

0201	Kristen Fawole, Audaldo Ponce	Seats (Total: 24)	
	Tu 11:00am - 3:00pm	CHE 1145	Lab
	Tu 10:00am - 10:50am	CHE 2136	Discussion
0301	Audaldo Ponce, Kristen Fawole	Seats (Total: 24)	
	Th 11:00am - 3:00pm	CHE 1145	Lab
	Th 10:00am - 10:50am	CHE 2136	Discussion
0401	Audaldo Ponce, Kristen Fawole	Seats (Total: 24)	
	F 1:00pm - 5:00pm	CHE 1145	Lab
	F 10:00am - 10:50am	CHE 2136	Discussion

CHBE440 **Chemical Kinetics and Reactor Design**

(Perm req)

Prerequisite: Minimum grade of C- in CHBE301, MATH241, and MATH246. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE440 or ENCH440. Formerly: ENCH440.

Fundamentals of chemical reaction kinetics and their application to the design and operation of chemical reactors. Reaction rate theory, homogeneous reactions and catalysis electrochemical reactions. Catalytic reactor design.

0101	Srinivasa Raghavan	Seats (Total: 60)	
	MWF 2:00pm - 2:50pm	CHE 2108	
	M 1:00pm - 1:50pm	CHE 2108	Discussion

CHBE442 **Chemical and Biomolecular Systems Analysis**

(Perm req)

Prerequisite: CHBE424 and CHBE426. Credit only granted for: CHBE442 or ENCH442. Formerly: ENCH442.

Dynamic response applied to process systems. Goals and modes of control, Laplace transformations, analysis and synthesis of simple control systems, closed loop response, dynamic testing.

0101	Kyu Yong Choi	Seats (Total: 100)	
	MWF 12:00pm - 12:50pm	CHE 2110	
	W 4:00pm - 4:50pm	CHE 2110	Discussion

CHBE444 **Process Engineering Economics and Design I**

(Perm req)

Prerequisite: CHBE424, CHBE426, and CHBE440. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE444 or ENCH444. Formerly: ENCH444.

Principles of chemical engineering economics and process design. Equipment sizing and costing. Economic evaluation of projects. Flowsheet synthesis. Introduction to flowsheet simulators and concepts of flowsheet optimization. Synthesis of Heat Exchanger Networks and Distillation Sequences.

0101	Ganesh Sriram	Seats (Total: 37)	
	TuTh 3:30pm - 4:45pm	ESJ 2212	
	W 11:00am - 11:50am	JMP 1202	Discussion
0102	Ganesh Sriram	Seats (Total: 37)	
	TuTh 3:30pm - 4:45pm	ESJ 2212	
	W 2:00pm - 2:50pm	JMP 1202	Discussion

CHBE452 **Introduction of Machine Learning in Chemical Engineering**

Recommended: Basic knowledge of chemical engineering, materials science, ordinary differential equations, and Python is desirable. Restriction: Permission of Department or Instructor. Jointly offered with: CHBE652. Credit only granted for: CHBE452 or CHBE652.

Introduction of data science and machine learning approaches to modern problems in chemical engineering and materials science. This course develops data science approaches, including their foundational mathematical and statistical basis, and applies these methods to data sets of limited size and precision. Methods for regression and clustering will be developed and applied, with an emphasis on validation and error quantification. Techniques that will be developed include linear and nonlinear regression, clustering and logistic regression, dimensionality reduction, unsupervised learning, and artificial neural networks. These methods will be applied to a range of engineering problems, including conducting polymers, stretchable conductors, organic synthesis, and quality control in manufacturing.

0101	Po-Yen Chen TuTh 2:00pm - 3:15pm	Seats (Total: 25) AJC 2119

CHBE468 **Research**

(Perm req)

Investigation of a research project under the direction of a faculty member. Comprehensive reports are required.

Contact department for information to register for this course.

CHBE469 **Special Projects**

(Perm req)

Special project under the direction of a faculty member. Comprehensive reports are required.

Contact department for information to register for this course.

CHBE472 **Control of Air Pollution Sources**

(Perm req)

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE672. Credit only granted for: CHBE472, CHBE672 or ENCH672.

Sources and effects of air pollutants, regulatory trends, atmospheric dispersion models, fundamentals of two-phase flow as applied to air pollution and air pollution control systems, design of systems for control of gases and particulate matter.

0101	Akua Asa-Awuku TuTh 11:00am - 12:15pm	Seats (Total: 25) AJC 2119

CHBE474 **Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Prerequisite: BIOE120; and permission of instructor. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE674. Credit only granted for: CHBE474, BIOE489T, ENCH648D or CHBE674.

Covers the fundamental steps involved in process development and manufacturing of biopharmaceuticals. An overview of different classes of biopharmaceuticals as well as manufacturing requirements for clinical development and regulatory approval will be provided. In depth coverage of manufacturing steps including cell culture, purification and formulation as well as drug product manufacturing, analysis and stability will be covered. Scientific literature will be used to highlight current challenges and novel solutions in each step of the manufacturing process. Scale up considerations, GMP requirements and process economics will also be introduced.

0101	Deborah Goldberg	Seats (Total: 10)
	TuTh 9:30am - 10:45am	AJC 2119

CHBE493 **Chemical Processes in Beer Brewing**

(Perm req)

Prerequisite: Minimum grade of C- in CHBE424 and CHBE440; and permission of instructor. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR- & Biomolecular Engineering department. Credit only granted for: CHBE493 or CHBE693. Additional information: Neither the students nor the instructor will be making or working with alcoholic beverages in the course.

Covers chemical engineering principles and chemical processes involved in the brewing and quality control of beer. Topics will include extraction and isomerization of bittering compounds from hops, enzymatic reactions involved in mashing beer, colloidal chemistry of haze formation, and microbiology of yeast and fermentation. Quantitative models will be applied to these processes based on fundamental chemical engineering principles from reaction kinetics, thermodynamics, transport phenomena, and colloid and interfacial science.

0101	Taylor Woehl	Seats (Total: 18)
	M 2:30pm - 5:00pm	SPH 0305

CHBE494 **Sustainable Separations and Carbon Capture**

(Perm req)

Prerequisite: Minimum grade of C- in CHBE424, CHBE426 and CHBE440; and permission of instructor. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and must have permission of ENGR- & Biomolecular Engineering department. Credit only granted for: CHBE494 or CHBE694.

Provides a comprehensive overview of sustainable separations and carbon dioxide capture using synthetic membranes and sorbents.

0101	Chen Zhang	Seats (Total: 20)
	MW 1:00pm - 2:15pm	SPH 0305

CHBE608 **Research in Chemical Engineering**

(Perm req)

Students gain experience in research through lab rotations and experience presenting their findings.

Contact department for information to register for this course.

CHBE609 **Graduate Seminar**

(Perm req)

Seminar in Chemical and Biomolecular Engineering

0101	Peter Kofinas	Seats (Total: 35)
	F 11:00am - 12:30pm	CHE 2108

CHBE610 **Chemical Engineering Thermodynamics**

(Perm req)

Prerequisite: CHBE301; and CHBE302. Or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: ENCH610 or CHBE610. Formerly: ENCH610.

Advanced application of the general thermodynamic methods to chemical engineering problems. First and second law consequences; estimation and correlation of thermodynamic properties; phase and chemical reaction equilibria.

0101	Jeffery Klauda	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	CHE 2140

CHBE620 **Methods of Engineering Analysis**

(Perm req)

Prerequisite: MATH246 and CHBE250; or students who have taken courses with comparable content may contact the department. Credit only granted for: ENCH620 or CHBE620. Formerly: ENCH620.

Application of selected mathematical techniques to the analysis and solution of engineering problems; included are the applications of matrices, vectors, tensors, differential equations, integral transforms, and probability methods to such problems as unsteady heat transfer, transient phenomena in mass transfer operations, stagewise processes, chemical reactors, process control, and nuclear reactor physics.

0101	Nam Sun Wang	Seats (Total: 20)
	TuTh 5:00pm - 6:15pm	CHE 2140

CHBE648 **Special Problems in Chemical Engineering**

(Perm req)

Research project under the direction of a faculty member.

Contact department for information to register for this course.

CHBE652 **Introduction of Machine Learning in Chemical Engineering**

Recommended: Basic knowledge of chemical engineering, materials science, ordinary differential equations, and Python is desirable. Restriction: Permission of Department or Instructor. Jointly offered with: CHBE452. Credit only granted for: CHBE452 or CHBE652.

Introduction of data science and machine learning approaches to modern problems in chemical engineering and materials science. This course develops data science approaches, including their foundational mathematical and statistical basis, and applies these methods to data sets of limited size and precision. Methods for regression and clustering will be developed and applied, with an emphasis on validation and error quantification. Techniques that will be developed include linear and nonlinear regression, clustering and logistic regression, dimensionality reduction, unsupervised learning, and artificial neural networks. These methods will be applied to a range of engineering problems, including conducting polymers, stretchable conductors, organic synthesis, and quality control in manufacturing.

0101	Po-Yen Chen, Tianle Chen	Seats (Total: 5)
	TuTh 2:00pm - 3:15pm	AJC 2119

CHBE672 **Control of Air Pollution Sources**

(Perm req)

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE472. Credit only granted for: CHBE472 or CHBE672.

Sources and effects of air pollutants, regulatory trends, atmospheric dispersion models, fundamentals of two-phase flow as applied to air pollution and air pollution control systems, design of systems for control of gases and particulate matter.

0101	Akua Asa-Awuku	Seats (Total: 8)
	TuTh 11:00am - 12:15pm	AJC 2119

CHBE693 **Chemical Processes in Beer Brewing**

Prerequisite: Minimum grade of C- in CHBE424 and CHBE440; and permission of instructor. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR- & Biomolecular Engineering department. Credit only granted for: CHBE493 or CHBE693. Additional information: Neither the students nor the instructor will be making or working with alcoholic beverages in the course.

Covers chemical engineering principles and chemical processes involved in the brewing and quality control of beer. Topics will include extraction and isomerization of bittering compounds from hops, enzymatic reactions involved in mashing beer, colloidal chemistry of haze formation, and microbiology of yeast and fermentation. Quantitative models will be applied to these processes based on fundamental chemical engineering principles from reaction kinetics, thermodynamics, transport phenomena, and colloid and interfacial science.

0101	Taylor Woehl	Seats (Total: 2)
	M 2:30pm - 5:00pm	SPH 0305

CHBE694 **Sustainable Separations and Carbon Capture**

(Perm req)

Prerequisite: Minimum grade of C- in CHBE424, CHBE426 and CHBE440; and permission of instructor. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and must have permission of ENGR- & Biomolecular Engineering department. Credit only granted for: CHBE494 or CHBE694.

Provides a comprehensive overview of sustainable separations and carbon dioxide capture using synthetic membranes and sorbents.

0101	Chen Zhang	Seats (Total: 5)
	MW 1:00pm - 2:15pm	SPH 0305

CHBE799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

CHBE898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

CHBE899 **Doctoral Dissertation Research; Chemical Engineering**

(Perm req)

Contact department for information to register for this course.

CHEM Chemistry Fall 2023

The College of Computer, Mathematical and Natural Sciences enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course. Registration in course sections which begin with "SEF" are restricted to students admitted into the Science in the Evening Program, administer ed through the Office of Extended Studies. For complete information, visit: OES website, email:oes@umd.edu, or call 301-405-7762.*

CHEM131 **Chemistry I - Fundamentals of General Chemistry**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM132. Recommended: For Science majors. Credit only granted for: CHEM103, CHEM131, CHEM135, CHEM153 or CHEM146. Formerly: CHEM103.

An overview of the Periodic Table, inorganic substances, ionic and covalent bonding, bulk properties of materials, chemical equilibrium, and quantitative chemistry. CHEM131 is the first course in a four-semester sequence for students majoring in the sciences, other than Chemistry and Biochemistry majors.

Students without the math pre-requisite will be administratively dropped.

1221	Lenea Stocker MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 33) CHM 1407 PHY 2214	Discussion
1222	Lenea Stocker MWF 10:00am - 10:50am Tu 9:30am - 10:20am	Seats (Total: 33) CHM 1407 PHY 2214	Discussion
1224	Lenea Stocker MWF 10:00am - 10:50am Tu 11:00am - 11:50am	Seats (Total: 33) CHM 1407 PHY 2214	Discussion
1241	Lenea Stocker MWF 10:00am - 10:50am Th 8:00am - 8:50am	Seats (Total: 33) CHM 1407 PHY 2214	Discussion
1242	Lenea Stocker MWF 10:00am - 10:50am Th 9:30am - 10:20am	Seats (Total: 18) CHM 1407 PHY 2214	Discussion
1243	Lenea Stocker MWF 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 33) CHM 1407 PHY 2214	Discussion
1325	Ashley Baxter MWF 9:00am - 9:50am Tu 12:30pm - 1:20pm	Seats (Total: 33) CHM 1407 PHY 2214	Discussion
1327	Ashley Baxter MWF 9:00am - 9:50am Tu 2:00pm - 2:50pm	Seats (Total: 18) CHM 1407 PHY 2214	Discussion
1328	Ashley Baxter MWF 9:00am - 9:50am Tu 3:30pm - 4:20pm	Seats (Total: 33) CHM 1407 PHY 2214	Discussion
1345	Ashley Baxter MWF 9:00am - 9:50am Th 12:30pm - 1:20pm	Seats (Total: 33) CHM 1407 PHY 2214	Discussion

1347	Ashley Baxter MWF 9:00am - 9:50am Th 2:00pm - 2:50pm	Seats (Total: 33) CHM 1407 PHY 2214	Discussion
1348	Ashley Baxter MWF 9:00am - 9:50am Th 3:30pm - 4:20pm	Seats (Total: 33) CHM 1407 PHY 2214	Discussion
1425	Ashley Baxter MWF 8:00am - 8:50am Tu 12:30pm - 1:20pm	Seats (Total: 33) CHM 1407 PHY 2122	Discussion
1426	Ashley Baxter MWF 8:00am - 8:50am Tu 2:00pm - 2:50pm	Seats (Total: 33) CHM 1407 PHY 2122	Discussion
1427	Ashley Baxter MWF 8:00am - 8:50am Tu 3:30pm - 4:20pm	Seats (Total: 33) CHM 1407 PHY 2122	Discussion
1445	Ashley Baxter MWF 8:00am - 8:50am Th 12:30pm - 1:20pm	Seats (Total: 33) CHM 1407 PHY 2122	Discussion
1446	Ashley Baxter MWF 8:00am - 8:50am Th 2:00pm - 2:50pm	Seats (Total: 18) CHM 1407 PHY 2122	Discussion
1447	Ashley Baxter MWF 8:00am - 8:50am Th 3:30pm - 4:20pm	Seats (Total: 33) CHM 1407 PHY 2122	Discussion
1521	James Rainbolt MWF 1:00pm - 1:50pm Tu 8:00am - 8:50am	Seats (Total: 33) CHM 1407 PHY 2106	Discussion
1522	James Rainbolt MWF 1:00pm - 1:50pm Tu 9:30am - 10:20am	Seats (Total: 33) CHM 1407 PHY 2106	Discussion

1523	James Rainbolt MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 18) CHM 1407 PHY 2106	 Discussion
1541	James Rainbolt MWF 1:00pm - 1:50pm Th 8:00am - 8:50am	Seats (Total: 33) CHM 1407 PHY 2106	 Discussion
1542	James Rainbolt MWF 1:00pm - 1:50pm Th 9:30am - 10:20am	Seats (Total: 33) CHM 1407 PHY 2106	 Discussion
1543	James Rainbolt MWF 1:00pm - 1:50pm Th 12:30pm - 1:20pm	Seats (Total: 33) CHM 1407 PHY 2106	 Discussion
FC01	Elizabeth Griffith TuTh 4:30pm - 5:45pm F 11:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 37) ESJ 1224 PHY 2214	 Discussion
FC02	Elizabeth Griffith TuTh 4:30pm - 5:45pm F 12:00pm - 12:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 37) ESJ 1224 PHY 2214	 Discussion
FC03	Elizabeth Griffith TuTh 4:30pm - 5:45pm F 3:00pm - 3:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 37) ESJ 1224 PHY 2214	 Discussion
SEF1	Amanda Schech M 6:30pm - 9:30pm W 6:30pm - 7:20pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 38) ESJ 2309 ESJ 2309	 Discussion

CHEM131S **Chemistry I - Fundamentals of General Chemistry**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM132. Recommended: For Science majors. Credit only granted for: CHEM103, CHEM131, CHEM135, CHEM153 or CHEM146. Formerly: CHEM103.

An overview of the Periodic Table, inorganic substances, ionic and covalent bonding, bulk properties of materials, chemical equilibrium, and quantitative chemistry. CHEM131 is the first course in a four-semester sequence for students majoring in the sciences, other than Chemistry and Biochemistry majors.

Restricted to College Park Scholars - Life Sciences. Students without the math pre-requisite will be administratively dropped.

1242	Lenea Stocker MWF 10:00am - 10:50am Th 9:30am - 10:20am	Seats (Total: 20) CHM 1407 PHY 2214	Discussion
1327	Ashley Baxter MWF 9:00am - 9:50am Tu 2:00pm - 2:50pm	Seats (Total: 20) CHM 1407 PHY 2214	Discussion
1446	Ashley Baxter MWF 8:00am - 8:50am Th 2:00pm - 2:50pm	Seats (Total: 20) CHM 1407 PHY 2122	Discussion
1523	James Rainbolt MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 20) CHM 1407 PHY 2106	Discussion

CHEM132 **General Chemistry I Laboratory**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM131. Credit only granted for: CHEM103, CHEM132, CHEM136, CHEM143, CHEM147 or CHEM177. Formerly: CHEM103.

Introduction to the quantification of chemical substances, including the concept of the mole and chemical stoichiometry. Additional work involves the synthesis of ionic substances and their qualitative characterization. Must be taken concurrently with CHEM131.

Prerequisite: Must have math eligibility of MATH120 or higher. Laboratory sessions will begin after the first lecture. Students must pay a $40.00 laboratory materials fee.

1111	Christiana Guest M 9:00am - 11:50am	Seats (Total: 24) ESJ 1312	Lab
1112	Christiana Guest M 9:00am - 11:50am	Seats (Total: 24) ESJ 1316	Lab
1122	Christiana Guest M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1316	Lab

1123	Christiana Guest M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 2324	Lab
1131	Christiana Guest M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1211	Christiana Guest Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 1312	Lab
1221	Christiana Guest Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1312	Lab
1222	Christiana Guest Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1316	Lab
1232	Christiana Guest Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1316	Lab
1233	Christiana Guest Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 2324	Lab
1321	Christiana Guest W 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	Lab
1331	Christiana Guest W 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1332	Christiana Guest W 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab
1333	Christiana Guest W 3:00pm - 5:50pm	Seats (Total: 24) ESJ 2324	Lab
1411	Christiana Guest Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 1312	Lab
1412	Christiana Guest Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 1316	Lab
1422	Christiana Guest Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1316	Lab

1432	Christiana Guest Th 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1316	Lab
1531	Christiana Guest F 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1532	Christiana Guest F 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab
FC11	Christiana Guest F 9:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ESJ 1316	Lab
FC12	Christiana Guest F 9:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ESJ 2324	Lab
FC21	Christiana Guest F 12:00pm - 2:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ESJ 1316	Lab
FC22	Christiana Guest F 12:00pm - 2:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ESJ 2324	Lab
FC33	Christiana Guest F 3:00pm - 5:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ESJ 1330	Lab
SEF1	Christiana Guest W 7:30pm - 10:30pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 24) ESJ 1330	Lab

CHEM132C **General Chemistry I Laboratory**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM131. Credit only granted for: CHEM103, CHEM132, CHEM136, CHEM143, CHEM147 or CHEM177. Formerly: CHEM103.

Introduction to the quantification of chemical substances, including the concept of the mole and chemical stoichiometry. Additional work involves the synthesis of ionic substances and their qualitative characterization. Must be taken concurrently with CHEM131.

Prerequisite: Must have math eligibility of MATH120 or higher. Students must pay a $40.00 laboratory materials fee.

1121	Christiana Guest M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	Lab
1132	Christiana Guest M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab
1133	Christiana Guest M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 2324	Lab
1213	Christiana Guest Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 2324	Lab
1231	Christiana Guest Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1312	Lab
1323	Christiana Guest W 12:00pm - 2:50pm	Seats (Total: 24) ESJ 2324	Lab
1421	Christiana Guest Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1312	Lab
1433	Christiana Guest Th 3:30pm - 6:20pm *This section is restricted to BioFire students.*	Seats (Total: 24) ESJ 2324	Lab
1521	Christiana Guest F 12:00pm - 2:50pm *This section is restricted to BioFire students.*	Seats (Total: 24) ESJ 1312	Lab

CHEM132S **General Chemistry I Laboratory**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM131. Credit only granted for: CHEM103, CHEM132, CHEM136, CHEM143, CHEM147 or CHEM177. Formerly: CHEM103.

Introduction to the quantification of chemical substances, including the concept of the mole and chemical stoichiometry. Additional work involves the synthesis of ionic substances and their qualitative characterization. Must be taken concurrently with CHEM131.

Restricted to College Park - Life Sciences. Prerequisite: Must have math eligibility of MATH120 or higher. Laboratory sessions will begin after the first lecture. Students must pay a $40.00 laboratory materials fee.

1212	Christiana Guest Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 1316	Lab
1322	Christiana Guest W 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1316	Lab
1431	Christiana Guest Th 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1312	Lab

CHEM134 **Chemical Principles for Engineering**

Prerequisite: Minimum grade of C- in CHEM131; or minimum grade of C- in CHEM146. Credit only granted for: CHEM 134 or CHEM 135.

Basic chemistry for engineering students. Introduction to organic structures and polymers, gas laws, liquids, solids, phase changes, chemical kinetics and electrochemistry.

0101	Amanda Souna Tu 8:00am - 8:50am	Seats (Total: 132) CHM 1402	

CHEM135 **General Chemistry for Engineers**

Prerequisite: Must have math eligibility of MATH120 or higher. Credit only granted for: CHEM103, CHEM113, CHEM131, CHEM135, or CHEM146.

The nature and composition of matter, solutions, chemical reactions, equilibria, and electrochemistry, with applications to various fields of engineering.

3125	Elizabeth Griffith TuTh 11:00am - 12:15pm M 12:00pm - 12:50pm	Seats (Total: 42) CHM 1407 PHY 2122	Discussion
3126	Elizabeth Griffith TuTh 11:00am - 12:15pm M 1:00pm - 1:50pm	Seats (Total: 42) CHM 1407 PHY 2122	Discussion
3127	Elizabeth Griffith TuTh 11:00am - 12:15pm M 2:00pm - 2:50pm	Seats (Total: 42) CHM 1407 PHY 2122	Discussion

3145	Elizabeth Griffith TuTh 11:00am - 12:15pm W 12:00pm - 12:50pm	Seats (Total: 42) CHM 1407 PHY 2122	Discussion
3147	Elizabeth Griffith TuTh 11:00am - 12:15pm W 1:00pm - 1:50pm	Seats (Total: 42) CHM 1407 PHY 2122	Discussion
3148	Elizabeth Griffith TuTh 11:00am - 12:15pm W 2:00pm - 2:50pm	Seats (Total: 42) CHM 1407 PHY 2122	Discussion
3225	Alice Mignerey MWF 2:00pm - 2:50pm Tu 8:00am - 8:50am	Seats (Total: 42) HJP 0226 PHY 2122	Discussion
3226	Alice Mignerey MWF 2:00pm - 2:50pm Tu 9:30am - 10:20am	Seats (Total: 42) HJP 0226 PHY 2122	Discussion
3227	Alice Mignerey MWF 2:00pm - 2:50pm Tu 11:00am - 11:50am	Seats (Total: 42) HJP 0226 PHY 2122	Discussion
3245	Alice Mignerey MWF 2:00pm - 2:50pm Th 8:00am - 8:50am	Seats (Total: 42) HJP 0226 PHY 2122	Discussion
3247	Alice Mignerey MWF 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 42) HJP 0226 PHY 2122	Discussion
3248	Alice Mignerey MWF 2:00pm - 2:50pm Th 11:00am - 11:50am	Seats (Total: 42) HJP 0226 PHY 2122	Discussion
3425	Amanda Schech TuTh 12:30pm - 1:45pm M 12:00pm - 12:50pm	Seats (Total: 42) HJP 0226 PHY 2214	Discussion

3426	Amanda Schech TuTh 12:30pm - 1:45pm M 1:00pm - 1:50pm	Seats (Total: 42) HJP 0226 PHY 2214	Discussion
3427	Amanda Schech TuTh 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 42) HJP 0226 PHY 2214	Discussion
3445	Amanda Schech TuTh 12:30pm - 1:45pm W 12:00pm - 12:50pm	Seats (Total: 42) HJP 0226 PHY 2214	Discussion
3446	Amanda Schech TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 42) HJP 0226 PHY 2214	Discussion
3447	Amanda Schech TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 42) HJP 0226 PHY 2214	Discussion
FC01	Samuel Lascio TuTh 4:30pm - 5:45pm F 11:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 35) CHM 1402 PHY 2122	Discussion
FC02	Samuel Lascio TuTh 4:30pm - 5:45pm F 12:00pm - 12:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) CHM 1402 PHY 2122	Discussion
FC03	Samuel Lascio TuTh 4:30pm - 5:45pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) CHM 1402 PHY 2122	Discussion

CHEM136 **General Chemistry Laboratory for Engineers**

Prerequisite: Must have completed or be concurrently enrolled in CHEM135 and must have math eligibility of MATH120 or higher. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

A laboratory course for engineering majors intending to take CHEM231 and CHEM232.

Prerequisite: Must have math eligibility of MATH120 or higher. Students must pay a $40.00 laboratory materials fee.

1125	Natalia White M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1330	Lab
1135	Natalia White Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1330	Lab
1215	Natalia White Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 1330	Lab
1225	Natalia White Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1330	Lab

CHEM146 **Principles of General Chemistry**

Prerequisite: Must have math eligibility of MATH140 or higher. Corequisite: CHEM177. Restriction: Must be in one of the following programs (Chemistry; Biochemistry). Credit only granted for: CHEM103, CHEM131, CHEM135, CHEM143, or CHEM146. Formerly: CHEM143.

An overview of the Periodic Table, inorganic substances, ionic and covalent bonding, bulk properties of materials, chemical equilibrium, and quantitative chemistry. CHEM146 is the first course in a four-semester sequence for Chemistry and Biochemistry majors.

0032	Efrain Rodriguez MWF 9:00am - 9:50am Tu 9:30am - 10:20am	Seats (Total: 30) PLS 1140 CHM 1228	Discussion
0033	Efrain Rodriguez MWF 9:00am - 9:50am Th 9:30am - 10:20am	Seats (Total: 30) PLS 1140 CHM 1228	Discussion

CHEM177 **Introduction to Laboratory Practices and Research in the Chemical Sciences**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM146, CHEM131, or CHEM135. Restriction: Must be in a major within CMNS-Chemistry & Biochemistry department; or permission of CMNS-Chemistry & Biochemistry department. Credit only granted for: CHEM132, CHEM136, CHEM147, or CHEM177.

First semester laboratory course required for CHEM and BCHM majors. Introduction to laboratory techniques, including safety practices, scientific ethics, and presentation of current research topics.

Prerequisite: Must have math eligibility of MATH120 or higher. Students must pay a $40.00 laboratory materials fee.

1131	Elizabeth Griffith F 3:00pm - 3:50pm M 3:00pm - 5:50pm	Seats (Total: 18) ESJ 1202 ESJ 0312	 Lab
1211	Elizabeth Griffith F 3:00pm - 3:50pm Tu 9:30am - 12:20pm	Seats (Total: 18) ESJ 1202 ESJ 0312	 Lab
1231	Elizabeth Griffith F 3:00pm - 3:50pm Tu 3:30pm - 6:20pm	Seats (Total: 18) ESJ 1202 ESJ 0312	 Lab
1331	Elizabeth Griffith F 3:00pm - 3:50pm W 3:00pm - 5:50pm	Seats (Total: 18) ESJ 1202 ESJ 0312	 Lab
1411	Elizabeth Griffith F 3:00pm - 3:50pm Th 9:30am - 12:20pm	Seats (Total: 18) ESJ 1202 ESJ 0312	 Lab
1431	Elizabeth Griffith F 3:00pm - 3:50pm Th 3:30pm - 6:20pm	Seats (Total: 18) ESJ 1202 ESJ 0312	 Lab

CHEM231 **Organic Chemistry I**

Prerequisite: CHEM131, CHEM135, or CHEM146; and (CHEM132, CHEM136, CHEM147, or CHEM177); and a grade of C- or better in the prerequisites is required of College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM232. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

The chemistry of carbon: aliphatic compounds, aromatic compounds, stereochemistry, arenes, halides, alcohols, esters and spectroscopy.

5125	James Rainbolt MWF 9:00am - 9:50am Tu 12:30pm - 1:20pm	Seats (Total: 27) PHY 1412 PHY 2208	 Discussion
5127	James Rainbolt MWF 9:00am - 9:50am Tu 2:00pm - 2:50pm	Seats (Total: 27) PHY 1412 PHY 2208	 Discussion

5128	James Rainbolt MWF 9:00am - 9:50am Tu 3:30pm - 4:20pm	Seats (Total: 27) PHY 1412 PHY 2208	Discussion
5145	James Rainbolt MWF 9:00am - 9:50am Th 12:30pm - 1:20pm	Seats (Total: 27) PHY 1412 PHY 2208	Discussion
5147	James Rainbolt MWF 9:00am - 9:50am Th 2:00pm - 2:50pm	Seats (Total: 27) PHY 1412 PHY 2208	Discussion
5148	James Rainbolt MWF 9:00am - 9:50am Th 3:30pm - 4:20pm	Seats (Total: 27) PHY 1412 PHY 2208	Discussion
5215	Sonia Hirschauer MWF 12:00pm - 12:50pm Tu 12:30pm - 1:20pm	Seats (Total: 27) CHM 1407 CHM 1228	Discussion
5216	Sonia Hirschauer MWF 12:00pm - 12:50pm Tu 2:00pm - 2:50pm	Seats (Total: 27) CHM 1407 CHM 1228	Discussion
5217	Sonia Hirschauer MWF 12:00pm - 12:50pm Tu 3:30pm - 4:20pm	Seats (Total: 27) CHM 1407 CHM 1228	Discussion
5235	Sonia Hirschauer MWF 12:00pm - 12:50pm Th 12:30pm - 1:20pm	Seats (Total: 27) CHM 1407 CHM 1228	Discussion
5236	Sonia Hirschauer MWF 12:00pm - 12:50pm Th 2:00pm - 2:50pm	Seats (Total: 27) CHM 1407 CHM 1228	Discussion
5237	Sonia Hirschauer MWF 12:00pm - 12:50pm Th 3:30pm - 4:20pm	Seats (Total: 27) CHM 1407 CHM 1228	Discussion

5315	Sonia Hirschauer TuTh 2:00pm - 3:15pm M 12:00pm - 12:50pm	Seats (Total: 27) CHM 1407 CHM 1224	Discussion
5316	Sonia Hirschauer TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 27) CHM 1407 CHM 1224	Discussion
5317	Sonia Hirschauer TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 27) CHM 1407 CHM 1224	Discussion
5335	Sonia Hirschauer TuTh 2:00pm - 3:15pm W 12:00pm - 12:50pm	Seats (Total: 27) CHM 1407 CHM 1224	Discussion
5336	Sonia Hirschauer TuTh 2:00pm - 3:15pm W 1:00pm - 1:50pm	Seats (Total: 27) CHM 1407 CHM 1224	Discussion
5337	Sonia Hirschauer TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 27) CHM 1407 CHM 1224	Discussion
5421	Bonnie Dixon MWF 2:00pm - 2:50pm Tu 8:00am - 8:50am	Seats (Total: 27) CHM 1407 CHM 1224	Discussion
5422	Bonnie Dixon MWF 2:00pm - 2:50pm Tu 9:30am - 10:20am	Seats (Total: 27) CHM 1407 CHM 1224	Discussion
5423	Bonnie Dixon MWF 2:00pm - 2:50pm Tu 11:00am - 11:50am	Seats (Total: 27) CHM 1407 CHM 1224	Discussion
5441	Bonnie Dixon MWF 2:00pm - 2:50pm Th 8:00am - 8:50am	Seats (Total: 27) CHM 1407 CHM 1224	Discussion

5442	Bonnie Dixon MWF 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 27) CHM 1407 CHM 1224	 Discussion
5443	Bonnie Dixon MWF 2:00pm - 2:50pm Th 12:30pm - 1:20pm	Seats (Total: 27) CHM 1407 CHM 1224	 Discussion
SEF1	Monique Koppel M 6:30pm - 9:30pm W 6:30pm - 7:20pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 36) PHY 2208 PHY 2208	 Discussion

CHEM232 **Organic Chemistry Laboratory I**

Prerequisite: CHEM131 and CHEM132; or (CHEM135 and CHEM136); or (CHEM146 and CHEM147). And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM231. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

Provides experience in developing some basic laboratory techniques, recrystallization, distillation, extraction, chromatography.

Laboratory sessions will begin after the first lecture of CHEM 231. Students must pay a $40.00 laboratory materials fee.

5121	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	 Lab
5122	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	 Lab
5123	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1360	 Lab
5131	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	 Lab
5132	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	 Lab
5133	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1360	 Lab

5141	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1346	Lab
5142	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1356	Lab
5143	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1360	Lab
5221	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1346	Lab
5222	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1356	Lab
5231	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1346	Lab
5232	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1356	Lab
5233	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1360	Lab
5241	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1346	Lab
5321	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	Lab
5322	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	Lab
5331	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	Lab
5332	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	Lab
5333	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1360	Lab

5341	Monique Koppel W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1346	Lab
5343	Monique Koppel W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1360	Lab
5421	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1346	Lab
5422	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1356	Lab
5423	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1360	Lab
5431	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1346	Lab
5432	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1356	Lab
5433	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1360	Lab
5441	Monique Koppel Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1346	Lab
5521	Monique Koppel F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	Lab
5531	Monique Koppel F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	Lab
5532	Monique Koppel F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	Lab
SEF1	Monique Koppel W 7:30pm - 10:30pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 18) CHM 1356	Lab

CHEM241 Organic Chemistry II

Prerequisite: CHEM231 and CHEM232; or CHEM237. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Credit only granted for: CHEM241, CHEM243 or CHEM247. Formerly: CHEM243.

A continuation of CHEM231 with emphasis on molecular structure; substitution reactions; carbonium ions; aromaticity; synthetic processes; macromolecules.

6115	Bonnie Dixon TuTh 8:00am - 9:15am M 12:00pm - 12:50pm	Seats (Total: 33) CHM 1407 CHM 1228	Discussion
6116	Bonnie Dixon TuTh 8:00am - 9:15am M 1:00pm - 1:50pm	Seats (Total: 33) CHM 1407 CHM 1228	Discussion
6117	Bonnie Dixon TuTh 8:00am - 9:15am M 2:00pm - 2:50pm	Seats (Total: 33) CHM 1407 CHM 1228	Discussion
6135	Bonnie Dixon TuTh 8:00am - 9:15am W 12:00pm - 12:50pm	Seats (Total: 33) CHM 1407 CHM 1228	Discussion
6136	Bonnie Dixon TuTh 8:00am - 9:15am W 1:00pm - 1:50pm	Seats (Total: 33) CHM 1407 CHM 1228	Discussion
6137	Bonnie Dixon TuTh 8:00am - 9:15am W 2:00pm - 2:50pm	Seats (Total: 33) CHM 1407 CHM 1228	Discussion
6212	Monique Koppel TuTh 9:30am - 10:45am M 9:00am - 9:50am	Seats (Total: 33) CHM 1407 CHM 1228	Discussion
6213	Monique Koppel TuTh 9:30am - 10:45am M 10:00am - 10:50am	Seats (Total: 33) CHM 1407 CHM 1228	Discussion
6214	Monique Koppel TuTh 9:30am - 10:45am M 11:00am - 11:50am	Seats (Total: 33) CHM 1407 CHM 1228	Discussion

6232	Monique Koppel TuTh 9:30am - 10:45am W 9:00am - 9:50am	Seats (Total: 33) CHM 1407 CHM 1228	Discussion
6233	Monique Koppel TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 33) CHM 1407 CHM 1228	Discussion
6234	Monique Koppel TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 33) CHM 1407 CHM 1228	Discussion
6415	Lenea Stocker TuTh 12:30pm - 1:45pm M 12:00pm - 12:50pm	Seats (Total: 33) CHM 1407 PHY 2213	Discussion
6416	Lenea Stocker TuTh 12:30pm - 1:45pm M 1:00pm - 1:50pm	Seats (Total: 33) CHM 1407 PHY 2213	Discussion
6417	Lenea Stocker TuTh 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 33) CHM 1407 PHY 2213	Discussion
6435	Lenea Stocker TuTh 12:30pm - 1:45pm W 12:00pm - 12:50pm	Seats (Total: 33) CHM 1407 PHY 2213	Discussion
6436	Lenea Stocker TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 33) CHM 1407 PHY 2213	Discussion
6437	Lenea Stocker TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 33) CHM 1407 PHY 2213	Discussion
SEF1	Howard Fribush M 6:30pm - 9:30pm W 6:30pm - 7:20pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 24) CHM 1224 CHM 1224	Discussion

CHEM242 Organic Chemistry Laboratory II

Prerequisite: CHEM231 and CHEM232; or CHEM237. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM241. Credit only granted for: CHEM243 or CHEM247. Formerly: CHEM243.

Synthetic organic chemistry through functional group manipulation, introduction to instrumentation essential to analysis and structure elucidation.

Students must pay a $40.00 laboratory materials fee.

6121	Lee Friedman M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	Lab
6122	Lee Friedman M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1330	Lab
6131	Lee Friedman M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	Lab
6132	Lee Friedman M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1330	Lab
6141	Lee Friedman M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1326	Lab
6142	Lee Friedman M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1330	Lab
6221	Lee Friedman Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1326	Lab
6222	Lee Friedman Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1330	Lab
6231	Lee Friedman Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1326	Lab
6232	Lee Friedman Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1330	Lab
6241	Lee Friedman Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1326	Lab

6242	Lee Friedman Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1330	Lab
6321	Lee Friedman W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	Lab
6322	Lee Friedman W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1330	Lab
6323	Lee Friedman W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1342	Lab
6331	Lee Friedman W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	Lab
6332	Lee Friedman W 3:00pm - 5:50pm	Seats (Total: 14) CHM 1330	Lab
6333	Lee Friedman W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1342	Lab
6341	Lee Friedman W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1326	Lab
6421	Lee Friedman Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1326	Lab
6422	Lee Friedman Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1330	Lab
6423	Lee Friedman Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1342	Lab
6431	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1326	Lab
6432	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1330	Lab
6433	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1342	Lab

6441	Lee Friedman Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1326	 Lab
6442	Lee Friedman Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1330	 Lab
6521	Lee Friedman F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	 Lab
6522	Lee Friedman F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1330	 Lab
6523	Lee Friedman F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1342	 Lab
6531	Lee Friedman F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	 Lab
6532	Lee Friedman F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1330	 Lab
SEF1	Lee Friedman W 7:30pm - 10:30pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 18) CHM 1330	 Lab

CHEM247 **Principles of Organic Chemistry II**

Prerequisite: Minimum grade of C- in CHEM237; or permission of CMNS-Chemistry & Biochemistry department. Restriction: Must be in one of the following programs (Chemistry; Biochemistry) ; or must be an honors student. Credit only granted for: CHEM243 or CHEM247.

A continuation of CHEM237 with emphasis on molecular structure, substitution reactions; carbonium ions; aromaticity; synthetic processes; macromolecules.

Students must pay a $40.00 laboratory materials fee.

6113	Lawrence Sita MWF 10:00am - 10:50am M 3:00pm - 5:50pm Tu 8:00am - 8:50am	Seats (Total: 18) PLS 1130 CHM 1342 PHY 2208	 Lab Discussion

6123	Lawrence Sita MWF 10:00am - 10:50am M 6:00pm - 8:50pm Tu 8:00am - 8:50am	Seats (Total: 18) PLS 1130 CHM 1342 PHY 2208	 Lab Discussion
6224	Lawrence Sita MWF 10:00am - 10:50am Tu 3:30pm - 6:20pm Tu 9:30am - 10:20am	Seats (Total: 18) PLS 1130 CHM 1342 PHY 2208	 Lab Discussion
6323	Lawrence Sita MWF 10:00am - 10:50am Tu 12:30pm - 3:20pm Tu 9:30am - 10:20am	Seats (Total: 18) PLS 1130 CHM 1342 PHY 2208	 Lab Discussion

CHEM271 **General Chemistry and Energetics**

Prerequisite: CHEM241 and CHEM242; or CHEM247. And a grade of C- or better in the prerequisites for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM272. Credit only granted for: CHEM113, CHEM153, CHEM271 or CHEM276. Formerly: CHEM113.

An introduction to the physical aspects of chemistry; chemical kinetics, thermodynamics and electrochemistry in the context of current chemistry research.

2222	Andrei Vedernikov MW 11:00am - 11:50am Tu 8:00am - 8:50am	Seats (Total: 25) CHM 1407 PHY 2211	 Discussion
2225	Andrei Vedernikov MW 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 25) CHM 1407 PHY 2211	 Discussion
2227	Andrei Vedernikov MW 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 25) CHM 1407 PHY 2211	 Discussion
2242	Andrei Vedernikov MW 11:00am - 11:50am Th 8:00am - 8:50am	Seats (Total: 25) CHM 1407 PHY 2211	 Discussion
2245	Andrei Vedernikov MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 25) CHM 1407 PHY 2211	 Discussion

2247	Andrei Vedernikov MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 25) CHM 1407 PHY 2211	Discussion
2326	YuHuang Wang MW 3:00pm - 3:50pm Tu 12:30pm - 1:20pm	Seats (Total: 25) CHM 1407 PHY 2124	Discussion
2327	YuHuang Wang MW 3:00pm - 3:50pm Tu 2:00pm - 2:50pm	Seats (Total: 25) CHM 1407 PHY 2124	Discussion
2328	YuHuang Wang MW 3:00pm - 3:50pm Tu 3:30pm - 4:20pm	Seats (Total: 25) CHM 1407 PHY 2124	Discussion
2346	YuHuang Wang MW 3:00pm - 3:50pm Th 12:30pm - 1:20pm	Seats (Total: 25) CHM 1407 PHY 2124	Discussion
2347	YuHuang Wang MW 3:00pm - 3:50pm Th 2:00pm - 2:50pm	Seats (Total: 25) CHM 1407 PHY 2124	Discussion
2348	YuHuang Wang MW 3:00pm - 3:50pm Th 3:30pm - 4:20pm	Seats (Total: 25) CHM 1407 PHY 2124	Discussion
SEF1	James Rainbolt M 6:00pm - 7:50pm W 6:30pm - 7:20pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 20) CHM 1228 ESJ B0322	Discussion

CHEM272 **General Bioanalytical Chemistry Laboratory**

Prerequisite: CHEM241 and CHEM242; or CHEM247. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM271. Credit only granted for: CHEM227, CHEM272 or CHEM277.

An introduction to analytical chemistry with an emphasis on bio-analytical instrumentation and techniques.

Students must pay a $40.00 laboratory materials fee.

8122	Amanda Schech F 11:00am - 11:50am M 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
8132	Amanda Schech F 11:00am - 11:50am M 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
8222	Amanda Schech F 11:00am - 11:50am Tu 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
8231	Amanda Schech F 11:00am - 11:50am Tu 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8321	Amanda Schech F 11:00am - 11:50am W 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8331	Amanda Schech F 11:00am - 11:50am W 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8421	Amanda Schech F 11:00am - 11:50am Th 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8431	Amanda Schech F 11:00am - 11:50am Th 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9121	Amanda Schech F 3:00pm - 3:50pm M 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9131	Amanda Schech F 3:00pm - 3:50pm M 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab

9221	Amanda Schech F 3:00pm - 3:50pm Tu 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9232	Amanda Schech F 3:00pm - 3:50pm Tu 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9322	Amanda Schech F 3:00pm - 3:50pm W 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9332	Amanda Schech F 3:00pm - 3:50pm W 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9422	Amanda Schech F 3:00pm - 3:50pm Th 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9432	Amanda Schech F 3:00pm - 3:50pm Th 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
SEF1	Amanda Schech M 8:00pm - 8:50pm W 7:30pm - 10:30pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 24) ONLINE ESJ 2312	 Lab

CHEM277 **Fundamentals of Analytical and Bioanalytical Chemistry Laboratory**

Prerequisite: Minimum grade of C- in CHEM241 and CHEM242; or minimum grade of C- in CHEM247. Corequisite: CHEM276. Restriction: Must be in one of the following programs (Chemistry; Biochemistry). Credit only granted for: CHEM153, CHEM227, CHEM272 or CHEM277.

Quantitative analysis, inorganic analytical chemistry, and an introduction to bio-analytical instrumentation and techniques.

Students must pay a $40.00 lab materials fee.

8111	Neil Blough F 11:00am - 11:50am MW 12:00pm - 2:50pm	Seats (Total: 18) CHM 1228 ESJ 0312	 Lab

8121	Neil Blough F 11:00am - 11:50am TuTh 12:30pm - 3:20pm	Seats (Total: 18) CHM 1228 ESJ 0312	 Lab

CHEM398 **Special Projects**

(Perm req)

Honors projects for undergraduate students.

Limited to chemistry honors students. Consult with Dr. Montague-Smith.

Contact department for information to register for this course.

CHEM399A **Introduction to Chemical Research**

(Perm req)

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399B **Introduction to Chemical Research**

(Perm req)

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399C **Introduction to Chemical Research**

(Perm req)

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399X **Introduction to Chemical Research; Chemistry Instruction**

(Perm req)

Basic (chemical) research conducted under the supervision of a faculty member.

0101	Lee Friedman Contact instructor or department for details.	Seats (Total: 8)
0102	Instructor: TBA Contact instructor or department for details.	Seats (Total: 30)

CHEM403 **Radiochemistry**

Prerequisite: Must have completed one year of college chemistry and one year of college physics.

Radioactive decay; introduction to properties of atomic nuclei; nuclear processes in cosmology; chemical, biomedical and environmental applications of radioactivity; nuclear processes as chemical tools; interaction of radiation with matter.

0101	Alice Mignerey MWF 12:00pm - 12:50pm	Seats (Total: 40) CHM 2201	

CHEM425 Instrumental Methods of Analysis

Prerequisite: CHEM272 and CHEM271; or (CHEM276 and CHEM277).

Modern instrumentation in analytical chemistry. Electronics, spectroscopy, chromatography and electrochemistry.

Students must pay a $40.00 laboratory materials fee.

0101	Peter Nemes MW 10:00am - 10:50am MW 12:00pm - 2:50pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0102	Peter Nemes MW 10:00am - 10:50am TuTh 12:30pm - 3:20pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0104	Peter Nemes MW 10:00am - 10:50am TuTh 9:30am - 12:20pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0105	Peter Nemes MW 10:00am - 10:50am MW 6:00pm - 8:50pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0109	Peter Nemes MW 10:00am - 10:50am TuTh 6:30pm - 9:20pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab

CHEM441 Advanced Organic Chemistry

Prerequisite: Must have completed or be concurrently enrolled in CHEM480 or CHEM481; and 1 course with a minimum grade of C- from (CHEM241, CHEM247). Jointly offered with: CHEM641.

An advanced study of the compounds of carbon, with special emphasis on molecular orbital theory and organic reaction mechanisms.

0101	Myles Poulin MW 4:00pm - 5:15pm	Seats (Total: 30) CHM 2201	

CHEM460 Structure Determination Using Spectroscopic Methods

Prerequisite: Must have completed CHEM243; or CHEM247; or (CHEM241 and CHEM242). Formerly: CHEM660.

The use of infrared, ultraviolet-visible, proton and carbon-13 nuclear magnetic resonance and mass spectroscopy for structure determination in organic chemistry.

0101	Daniel Falvey	Seats (Total: 40)
	MWF 10:00am - 10:50am	CHM 2201

CHEM481 Physical Chemistry I

Prerequisite: Minimum grade of C- in CHEM135; or minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. And minimum grade of C- in MATH141. And minimum grade of C- in PHYS260 and PHYS261; or minimum grade of C- in PHYS141.

Thermodynamics and kinetics of chemical and molecular systems. Topics may include internal energy, heat, work, enthalpy, entropy, free energy, and spontaneity as well as reaction order, differential rate laws, integrated rate laws, and rate laws for multi-step processes.

0101	Christopher Jarzynski	Seats (Total: 116)
	MWF 9:00am - 9:50am	CHM 1402

CHEM482 Physical Chemistry II

Prerequisite: Minimum grade of C- in CHEM135; or minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. And minimum grade of C- in MATH141. And minimum grade of C- in PHYS260 and PHYS261; or minimum grade of C- in PHYS141. Credit only granted for: CHEM482 or BCHM485.

Quantum mechanical nature of atoms and molecules. Topics may include model systems for electronic, vibrational, rotational and translational energies as well as connections to molecular spectroscopy and thermal distributions.

0101	Leah Dodson	Seats (Total: 42)
	MWF 9:00am - 9:50am	PHY 2106

CHEM483 Physical Chemistry Laboratory I

Prerequisite: Must have completed or be concurrently enrolled in CHEM481.

An introduction to the principles and application of quantitative techniques in physical chemical measurements. Experiments will be coordinated with topics in CHEM481.

Students must pay a $40.00 lab materials fee.

0114	Amanda Souna	Seats (Total: 18)	
	Th 11:00am - 11:50am Tu 9:30am - 12:20pm	PLS 1130 CHM 3225	 Lab

0124	Amanda Souna Th 11:00am - 11:50am Tu 2:00pm - 4:50pm	Seats (Total: 18) PLS 1130 CHM 3225	 Lab
0144	Amanda Souna Th 11:00am - 11:50am W 2:00pm - 4:50pm	Seats (Total: 18) PLS 1130 CHM 3225	 Lab

CHEM484 **Physical Chemistry Laboratory II**

Prerequisite: CHEM481 and CHEM483; and must have completed or be concurrently enrolled in CHEM482.

A continuation of CHEM 483. Advanced quantitative techniques necessary in physical chemical measurements. Experiments will be coordinated with topics in CHEM 482.

Students must pay a $40.00 laboratory materials fee.

0124	Amanda Souna Th 3:30pm - 4:20pm W 3:00pm - 5:50pm	Seats (Total: 12) CHM 2201 CHM 3221	 Lab
0134	Amanda Souna Th 3:30pm - 4:20pm W 10:00am - 12:50pm	Seats (Total: 12) CHM 2201 CHM 3221	 Lab

CHEM601 **Structure and Bonding of Molecules and Materials**

Development of the tools necessary to use the knowledge of structure and bonding of molecules and solids in the practice of synthetic inorganic and materials chemistry. Several bonding models are covered, from the simple valence bond and ligand field models to a quantitative group theoretical treatment of molecular orbital theory and band structure descriptions of solids. Concepts of electron counting and oxidation state and ligand characteristics are revisited in terms of the more sophisticated bonding models. Finally, these models are used to analyze the reactivity, magnetic and spectroscopic properties of inorganic coordination compounds. Prior advanced inorganic and/or advanced quantum chemistry courses are not prerequisites.

0101	Mercedes Taylor MWF 9:00am - 9:50am	Seats (Total: 21) CHM 2201	

CHEM608K **Selected Topics in Inorganic Chemistry; Chemistry Teaching and Learning in Higher Education**

(Perm req)

Topics of special interest and current importance.

Cross-listed with BIOL608K, CBMG699K, and ENTM699K. Credit will be grant edfor only one of the following: BIOL608K, CBMG699K, CHEM608K, or ENTM699K.

0101	Gili Ad-Marbach	Seats (Total: 12)
	W 11:00am - 12:40pm	BPS 1208

CHEM611 **Professional Skills for New Graduate Students**

Restriction: Must be in one of the following programs (Chemistry (Master's); Biochemistry (Master's); Biochemistry (Doctoral); Chemistry (Doctoral)) ; and must be a new graduate student.

Covers a wide range of topics in professional development for new graduate students.

0101	Neil Blough	Seats (Total: 40)
	F 2:00pm - 3:15pm	CHM 1402

CHEM624 **Electrical Methods of Quantitative Analysis**

Prerequisite: CHEM482; or students who have taken courses with comparable content may contact the department.

The use of conductivity, potentiometry, polarography, voltammetry, amperometry, coulometry, and chronopotentiometry in quantitative analysis.

0101	Sangbok Lee	Seats (Total: 25)
	TuTh 8:00am - 9:15am	CHM 2201

CHEM641 **Organic Reaction Mechanisms**

Jointly offered with CHEM441.

0101	Myles Poulin	Seats (Total: 30)
	MW 4:00pm - 5:15pm	CHM 2201

CHEM648P **Special Topics in Organic Chemistry; Chemical Biology**

Topics of special interest and current importance.

0101	Lai-Xi Wang	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	CHM 1224

CHEM684 **Chemical Thermodynamics**

Prerequisite: CHEM482; or students who have taken courses with comparable content may contact the department.

0101	Pratyush Tiwary	Seats (Total: 27)
	TuTh 11:00am - 12:15pm	CHM 2201

CHEM690 **Quantum Chemistry I**

0101	Amy Mullin	Seats (Total: 25)
	TuTh 9:30am - 10:45am	CHM 2201

CHEM699 **Special Problems in Chemistry**

Laboratory experience in a research environment.

Open only to non-thesis Master's degree candidates.

Contact department for information to register for this course.

CHEM799 **Master's Thesis Research**
Contact department for information to register for this course.

CHEM889A **Seminar**

0101	Alice Mignerey	Seats (Total: 15)
	W 11:00am - 11:50am	CHM 2201

CHEM889C **Seminar**

0101	Mercedes Taylor	Seats (Total: 30)
	Th 11:00am - 12:15pm	IPT 1116

CHEM889D **Seminar; Organic**

0101	Mercedes Taylor	Seats (Total: 19)
	Th 11:00am - 12:15pm	IPT 1116

CHEM889E **Seminar; Physical Chemistry**

Cross-listed with CHEM898F and CHPH709A. Credit will be granted for one ofthe following: CHEM889E, CHEM889F, or CHPH709A.

0101	Leah Dodson	Seats (Total: 55)
	W 11:00am - 12:15pm	IPT 1116

CHEM889F **Seminar; Chemical Physics**

Cross-listed with CHEM898E and CHPH709A. Credit will be granted for one ofthe following: CHEM889E, CHEM889F, or CHPH709A.

0101	Leah Dodson	Seats (Total: 55)
	W 11:00am - 12:15pm	IPT 1116

CHEM889M **Seminar; Materials Chemistry**
Contact department for information to register for this course.

CHEM898 **Pre-Candidacy Research**
Contact department for information to register for this course.

CHEM899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

CHIN Chinese Fall 2023

CHIN101 **Intensive Elementary Chinese I**

(Perm req)

Prerequisite: Must have attained appropriate World Language Placement Test (WLPT) score.

Introduction to speaking, reading, and writing Chinese with an emphasis on mastering the essentials of pronunciation, basic characters and structural patterns.

0201	Jungjung Lee-Heitz, Mei Kong MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 1226 JMZ 0120
0301	Guiling Hu MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 15) JMZ 0205 ONLINE

CHIN105 **Elementary Chinese - Accelerated Track**

Prerequisite: Must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not have completed CHIN103, CHIN102, or CHIN101.

Accelerated instruction in Mandarin Chinese at the elementary level for students with prior Chinese language background, either through home use or formal instruction.

0101	Ting-Yu Wen MWF 11:00am - 11:50am	Seats (Total: 15) PLS 1129

CHIN169A **Special Topics in Study Abroad I; Elementary Chinese I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN169B **Special Topics in Study Abroad I; Elementary Chinese II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN201 **Intermediate Spoken Chinese I**

(Perm req)

Prerequisite: CHIN102; or must have attained appropriate World Language Placement Test (WLPT) score. Corequisite: CHIN202. Additional information: Must be taken in conjunction with CHIN202.

Emphasis on development of conversational skills with vocabulary build-up and controlled conversation.

0101	Mei Kong MWF 12:00pm - 12:50pm	Seats (Total: 15) JMZ 1124
0201	Guiling Hu MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 0205

CHIN202 **Intermediate Written Chinese I**

(Perm req)

Prerequisite: CHIN103; or must have attained appropriate World Language Placement Test (WLPT) score. Corequisite: CHIN201. Additional information: Must be taken in conjunction with CHIN201.

Reading and writing skills with emphasis on grammar and Chinese characters.

0101	Jungjung Lee-Heitz TuTh 12:30pm - 1:45pm	Seats (Total: 15) JMZ 0208
0201	Guiling Hu Class time/details on ELMs	Seats (Total: 15) ONLINE

CHIN203 **Intermediate Spoken Chinese II**

Prerequisite: CHIN201; or students who have taken courses with comparable content may contact the department; or must have attained appropriate World Language Placement Test (WLPT) score. Corequisite: CHIN204. Additional information: Must be taken in conjunction with CHIN204.

Continuation of CHIN201.

Contact department for information to register for this course.

CHIN269B **Special Topics in Study Abroad II; Chinese Business Issues and Practices**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269I **Special Topics in Study Abroad II; Intermediate Spoken Chinese I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269P **Special Topics in Study Abroad II; The China Phenomenon**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269W **Special Topics in Study Abroad II; Chinese Calligraphy II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN301 **Advanced Chinese I**

(Perm req)

Prerequisite: CHIN202; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Readings in expository and fictional writing with conversation and composition.

0101	Yuli Wang MWF 11:00am - 11:50am	Seats (Total: 15) ESJ B0320
0201	Yuli Wang MWF 1:00pm - 1:50pm	Seats (Total: 15) JMZ 1124

CHIN305 **Life in China through TV Plays I**

Prerequisite: CHIN203 and CHIN204; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Using authentic Chinese language material in short TV plays to learn about society and life in China.

0101	Ting-Yu Wen MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 1124

CHIN313 **Chinese Poetry and Prose in Translation**

Writing of the major poets, essayists, and historians from the 10th century B.C. to the 12th century A.D. No knowledge of Chinese is required.

Contact department for information to register for this course.

CHIN315 **Modern Chinese Literature in Translation**

Major works of fiction and drama from 1920 to the present read in the context of social and literary change. Emphasis on western and traditional Chinese influences on the writers and their works. No knowledge of Chinese required.

0101	Belinda Qian He TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMZ 2206

CHIN331 **Chinese Calligraphy: Theory and Practice**

Prerequisite: CHIN220; or permission of instructor.

History of the writing system; major scripts, modes, and styles. Intermediate brushwork and lectures on the culture. Characters for practice selected to correspond to lecture topics. Taught in English.

0101	Yuli Wang Tu 12:30pm - 3:00pm	Seats (Total: 20) EDU 1315

CHIN369B **Special Topics in Study Abroad III; Advanced Chinese I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369C **Special Topics in Study Abroad III; Advanced Chinese II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369D **Special Topics in Study Abroad III; Advanced Chinese III**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369E **Special Topics in Study Abroad III; Advanced Chinese IV**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN386 **Experiential Learning**

(Perm req)

Prerequisite: Must have learning proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

CHIN401 **Readings in Modern Chinese I**

(Perm req)

Prerequisite: CHIN302; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Readings in history, politics, economics, sociology, and literature. Emphasis on wide-ranging, rapid reading, reinforced by conversations and compositions.

0101	Mei Kong	Seats (Total: 15)
	MWF 3:00pm - 3:50pm	JMZ 0205

CHIN411 **Business Chinese I**

Prerequisite: CHIN402; or permission of ARHU-School of Languages, Literatures, and Cultures department. And must have taken a placement interview offered by the department for Non-majors.

Conversation, reading, and writing applicable to Chinese business transactions, social meetings, and meetings with government organizations, plus background material in English on professional business practices and social customs associated with business.

0101	Jungjung Lee-Heitz	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	JMZ 1124

CHIN418T **Special Topics in Contemporary Chinese Fiction and Film; Where Truth Lies: Chinese Cinema between Fact and Fiction**

Various approaches to the most recent textual productions of China and Taiwan. Taught in Chinese.

Cross-listed with CINE429F. Credit only granted for CHIN418T and CINE429F. This course explores Chinese/Sinophone films and media that unsettle the boundary between fiction and nonfiction in this class. Course materials under discussion draw on a variety of genres, forms, and approaches: reportage, mockumentary, docudrama, found footage, true crime series, crowd-sourced video remix, filmed reenactments, essay film and ephemeral media of various kinds, etc.

0101	Belinda Qian He	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 1224

CHIN441 **Traditional Chinese Fiction**

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department.

Major works of fiction from the 4th century tales of the marvelous through the 19th century Qing novel. Readings are in classical Chinese and English. Designed for students with advanced language skills. Taught in English.

0101	Andrew Schonebaum	Seats (Total: 18)
	TuTh 12:30pm - 1:45pm	JMZ 1124

CHIN499 **Directed Study in Chinese**

(Perm req)

Readings in Chinese under faculty supervision.

Contact department for information to register for this course.

CHPH Chemical Physics Fall 2023

CHPH618 **Special Projects in Chemical Physics**

(Perm req)

Independent reading and study covering chemical physics subject areas not available in other courses.

Contact department for information to register for this course.

CHPH709A **Seminar in Chemical Physics; Physical Chemistry**

Current research and developments in chemical physics.

Jointly offered with CHEM898E and CHEM898F. Credit will be granted for o ne ofthe following: CHEM889E, CHEM889F, or CHPH709A.

0101	Leah Dodson	Seats (Total: 55)
	W 11:00am - 12:15pm	IPT 1116

CHPH709B **Seminar in Chemical Physics; Statistical Physics**

Current research and developments in chemical physics.

Cross-listed with PHYS709.

0101	Pratyush Tiwary Tu 1:15pm - 2:30pm	Seats (Total: 30) IPT 1116

CHPH709L **Seminar in Chemical Physics; Biophysics**

Current research and developments in chemical physics.

0101	Arpita Upadhyaya M 4:00pm - 5:30pm	Seats (Total: 20) IPT 1116

CHPH718I **Special Topics in Chemical Physics; Chemical Physics Rotation**

(Perm req)

A discussion of current research problems in chemical physics.

For Chemical Physics Students only.

0101	Wendell Hill Class time/details on ELMs	Seats (Total: 5) ONLINE
0201	Wendell Hill Contact instructor or department for details.	Seats (Total: 10)

CHPH799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

CHPH898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

CHPH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

CHSE Counseling, Higher Education, and Special Education — Fall 2023

CHSE200 **College Success and Life Planning - Managing College and Career Life through Goal Development and Planning**

(Perm req)

Restriction: Must be in the TerpsEXCEED Program; and permission from TerpsEXCEED Director. Additional information: Priority enrollment for students in the TerpsEXCEED program.

The overarching goal of this course is to guide new students affiliated with the TerpsEXCEED program in navigating the initial stages of college, career and campus life management. The course is organized around Academic and Career Habits, Cultural Know-How, Balance of Multiple Roles, and Self-Direction in order to address (a) skills and interest assessments, (b) goal setting, (c) organizational and independent living skills development, (d) travel and transportation orientation to navigate and access campus and College Park, (e) financial planning, (f) safety, (g) social activity access, and (h) basic scheduling and time management. TerpsEXCEED students will be matched with typical student peer supports for a more normalized college experience.

0101	Amy D'Agati, Meredith Gramlich TuTh 9:30am - 10:45am	Seats (Total: 10) JMZ 1103

CHSE205 **Disability: From Stigma and Sideshow to Mainstream and Main Street**

Credit only granted for: EDSP289I or CHSE205. Formerly: EDSP289I.

Explores the cultural, historical, educational, and medical roots of difference among human beings and examines the impact of cultural and technological changes on individuals traditionally identified as disabled. The course is designed to develop a broad understanding of the concept of "disability" and the emerging technologies that shape contemporary understanding of this phenomenon and the lives of those considered disabled.

0101	Yewon Lee TuTh 9:30am - 10:45am	Seats (Total: 60) SQH 1120

CHSE230 **Career Exploration and Development**

(Perm req)

Restriction: Must be in the TerpsEXCEED program; and permission from the College of Education Student Services office.

This course prepares TerpsEXCEED students for on-the-job internship experiences in future semesters by guiding them through career exploration, discovery, and skill development. Students will complete career assessments, develop resumes, practice interviews, engage employers, learn how to fill out applications, practice technical and soft skills to improve employability, and secure internship options for the next semester.

0101	Amy D'Agati, Stacie Brownrigg TuTh 11:00am - 12:15pm	Seats (Total: 20) CHE 2116

CHSE328C **Common Ground Deliberative Dialogues; Civicus**

The Common Ground Multicultural Dialogue Program provides structured opportunities for students to engage in peer-led dialogues on compelling hot button topics that have important implications for our society. These topics often elicit strong opinions and have the potential to be divisive. A primary goal of the program is to equip students with the skills, experiences, and confidence to engage with others on difficult topics such as these. Participants drive the content of the dialogue by sharing their perspectives and ideas for addressing the topic, ultimately attempting to find areas of consensus among the group. By the end of the experience, participants should have a greater appreciation of the complexity of the topic and a better understanding of perspectives on the topic that differ from their own, building their capacity for empathy while still potentially disagreeing with certain ideas.

Restricted to Students in the CIVICUS Program.

0101	Nicole Mehta, Nikita Kimani **Meets August 28, 2023 - October 17, 2023** Tu 4:00pm - 6:00pm	Seats (Total: 18) Location: TBA
0201	Nikita Kimani, Nicole Mehta **Meets October 23, 2023 - December 11, 2023** W 4:00pm - 6:00pm	Seats (Total: 18) SOM 0101
0301	Nicole Mehta, Nikita Kimani **Meets October 23, 2023 - December 11, 2023** Th 4:00pm - 6:00pm	Seats (Total: 18) SOM 0101

CHSE389 **Independent Study**

(Perm req)

Customized project based on an individual topic area within Counseling, Higher Education and Special Education

Contact department for information to register for this course.

CHSE489 **Internship**

(Perm req)

Builds on students' individual career exploration process, which determines what types of internships students participate in. It is a fully experiential course that requires on-the-job experiences related to career interests and course of study; an additional semester can involve expansion of a position with new learning tasks or a new position. Students are graded on self-reflections, employer feedback, instructor observations and a final project demonstrating newly gained on-the-job knowledge and an updated career plan.

Contact department for information to register for this course.

CHSE498 **Independent Study**

(Perm req)

In collaboration with the approved instructor, students will define the scope of a service or research-based project, create a plan and timeline (with goals and projected outcomes), and present a product that demonstrates outcomes. This could include doing a service project with a Center within CHSE or specific program that aligns with a career interest or passion.

Contact department for information to register for this course.

CINE Cinema and Media Studies Fall 2023

CINE245 **Film Form and Culture**

Cross-listed with: ENGL245. Credit only granted for: ENGL245, CINE245 or FILM245. Formerly: FILM245.

Introduction to film as art form and how films create meaning. Basic film terminology; fundamental principles of film form, film narrative, and film history. Examination of film technique and style over past one hundred years. Social and economic functions of film within broader institutional, economic, and cultural contexts.

0101	Oliver Gaycken MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 23) TWS 0320 ASY 3219	Discussion
0102	Oliver Gaycken MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 23) TWS 0320 TWS 0214	Discussion
0103	Oliver Gaycken MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) TWS 0320 ASY 3221	Discussion
0104	Oliver Gaycken MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 23) TWS 0320 ASY 3219	Discussion

CINE280 **Film Art in a Global Society**

Cross-listed with: CMLT280. Credit only granted for: CINE280, FILM298D or CMLT280. Formerly: FILM298D.

Comparative study of a variety of film traditions from around the world, including cinema from Hollywood, Europe, Asia and developing countries, with a stress on different cultural contexts for film-making and viewing.

0101	William Pittman MWF 1:00pm - 1:50pm	Seats (Total: 30) TWS 0234	

0201	Anthony Obute	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TWS 1106

CINE283 **Iranian Cinema**

Cross-listed with: PERS283. Credit only granted for: PERS283, CINE283 or FILM298B.

Introduction to Iranian cinema, society, and culture. Taught in English.

0101	Marjan Moosavi	Seats (Total: 30)
	MW 3:30pm - 4:45pm	JMZ 2206

CINE301 **Cinema History I: The Silent Era**

(Perm req)

Prerequisite: ENGL245, CINE245, or FILM245; or permission of ARHU-College of Arts & Humanities. Credit only granted for: CINE301 or FILM301. Formerly: FILM301.

Examines the development of silent cinema from the 1890s to the early 1930s drawing on at least five distinct national traditions (French, German, Russian, British, and American). Introduces students to key cinematic conventions as they emerged around the world.

0101	Elizabeth Papazian	Seats (Total: 30)
	MW 10:00am - 11:50am	ESJ B0322

CINE319A **Special Topics in Documentary, Animation, Experimental Cinema, and Other Visual Media; David Bowie, Film, and Audio-Visual Media**

Examine the possibilities of non-narrative cinema, or cinema that is structured differently from the fiction feature film, as well as other media (television, digital imagery, and photography) that entertain a close relationship with cinema in terms of form, content, and audience. Content varies.

Prerequisite: ENGL245, FILM245, CINE245, FILM283, or SLLC283; or permission of instructor. Also offered as ENGL329F. Credit only granted for CINE319A or ENGL329F.

0101	Paul Cote	Seats (Total: 25)
	MWF 12:00pm - 12:50pm	JMZ 0118

CINE319C **Special Topics in Documentary, Animation, Experimental Cinema, and Other Visual Media; Images of Revolt: Strike, Riot, Uprising**

Examine the possibilities of non-narrative cinema, or cinema that is structured differently from the fiction feature film, as well as other media (television, digital imagery, and photography) that entertain a close relationship with cinema in terms of form, content, and audience. Content varies.

0101	Mauro Resmini, Luka Arsenjuk	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	BPS 0283

CINE319M **Special Topics in Documentary, Animation, Experimental Cinema, and Other Visual Media; Introduction to Filmmaking**

(Perm req)

Examine the possibilities of non-narrative cinema, or cinema that is structured differently from the fiction feature film, as well as other media (television, digital imagery, and photography) that entertain a close relationship with cinema in terms of form, content, and audience. Content varies.

This practice-based course offers an introduction to the foundational skills, techniques, and principles of filmmaking. Prior film or video production experience is not necessary.

0101	Justin Foreman	Seats (Total: 15)	
	W 2:00pm - 3:15pm	JMZ 1205	
	W 3:30pm - 6:00pm	JMZ 1205	Lab

CINE329T **Special Topics in National/International Cinemas; Sports in Film**

Examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

0101	Daniel Richter	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

CINE337 **Contemporary Chinese Art and Film**

Cross-listed with: ARTH392. Credit only granted for: ARTH392, FILM329L or CINE337. Formerly: FILM329L.

Contemporary Chinese art and film are arguably the most vibrant of all national arts at the turn of the millennium and have become the face - both figuratively and literally - of contemporary China, a complex society with historic overlays of Confucianism, Taoism, Buddhism, Communism, Post-socialism, and state capitalism. Students will consider a wide range of art forms (painting, photography, video, installation, web-based media, and film) in four broad themes (uses of the past; critiques of power; representations of race, gender, and sexuality; socially engaged art) and explore the complex intertwining of the political, historical, and aesthetic aspects in Chinese contemporary art and film, as well as the multiple contexts in which these artworks are created and circulated.

0101	Jason Kuo	Seats (Total: 25)
	M 1:00pm - 3:30pm	ASY 4213A

CINE344 **Film and the Fantastic**

Prerequisite: ENGL245, FILM245, or CINE245; or permission of ARHU-School of Languages, Literatures, and Cultures department. Cross-listed with: SLLC344. Credit only granted for: SLLC344, CINE344 or FILM344. Formerly: FILM344.

Survey of fantastic cinema, encompassing American classics, Hollywood recent productions, and independent films, as well as Asian horror films, anime, and European fantasy.

Prerequisite: ENGL245, FILM245, CINE245, SLLC283, or FILM283; or permission of instructor. Also offered as ENGL329I. Credit granted for ENGL329I or CINE344.

0101	Paul Cote	Seats (Total: 25)
	MWF 1:00pm - 1:50pm	JMZ 0103

CINE345 **The Films of Alfred Hitchcock**

Prerequisite: ENGL245, FILM245, or CINE245; or permission of ARHU-College of Arts & Humanities. Credit only granted for: CINE345, FILM345 or ENGL329J. Formerly: FILM345.

An examination of important Hitchcock films from the perspective of innovation, aesthetics, and cultural history.

Prerequisite: ENGL245, FILM245, or CINE245; or permission of ARHU- College of Arts & Humanities. Also offered as CINE345. Credit only granted for FILM345, CINE345 or ENGL329J.

0101	Marianne Conroy	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 0234

CINE359C **Special Topics in Genres/Auteurs/Cinema Movements; Disaster Cinema**

Examine narrative cinema from the perspective of content (themes, issues, structures) and style through the lens of genre, auteurship (a concept of authorship in film studies), and/or historical aesthetic movements that have been influential in the development of cinema as an art and film studies as a field. Content varies.

Exploration of disaster films in Hollywood and global cinema during the past century. The course will examine disaster films, such as Godzilla, King Kong, and Contagion, as a form of cinema's critical encounter with war, colonialism, and scientific development.

0101	Daniel Richter	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

CINE359O **Special Topics in Genres/Auteurs/Cinema Movements; New Wave Cinemas of the Soviet Bloc**

Examine narrative cinema from the perspective of content (themes, issues, structures) and style through the lens of genre, auteurship (a concept of authorship in film studies), and/or historical aesthetic movements that have been influential in the development of cinema as an art and film studies as a field. Content varies.

0101	Elizabeth Papazian	Seats (Total: 20)
	MW 3:30pm - 4:45pm	HBK 0123

CINE369N **Special Topics in Film Theories; Voice, Music, Sound**

Examines specific methodologies (structuralism, feminism, postcolonialism, etc.) for the critical analysis of film. The course will also consider the historical development of theoretical concepts. Content varies.

0101	Eric Zakim	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	ESJ B0322

CINE369P **Special Topics in Film Theories; Paranoia and Conspiracy Narrative in Contemporary Cinema**

Examines specific methodologies (structuralism, feminism, postcolonialism, etc.) for the critical analysis of film. The course will also consider the historical development of theoretical concepts. Content varies.

0101	Luka Arsenjuk	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	ESJ B0322

CINE388 **Experiential Learning: Cinema and Media Studies**

Connects students' theoretical understanding of film studies, as obtained through the classroom, to professional experience.

Contact department for information to register for this course.

CINE411 **Experimental Film**

Cross-listed with: SLLC411. Credit only granted for: SLLC411, CINE411 or FILM411. Formerly: FILM411.

Introductory survey of European and U.S. American experimental cinema.

0101	Eric Zakim	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	ESJ B0322

CINE423 **Women and French Cinema**

Cross-listed with: FREN423. Credit only granted for: FREN423, CINE423 or FILM423. Formerly: FILM423.

Cultural identity, social boundaries and gender roles in French film as well as introduction to film textual analysis and diverse film theories (semiotics, film and psychoanalysis, feminist film theory, structuralism, narratology, spectatorship and cultural studies). Taught in French.

0101	Caroline Eades	Seats (Total: 20)
	MW 2:00pm - 3:15pm	JMZ 0103

CINE429F **Special Topics in National/International Cinemas; Where Truth Lies: Chinese Cinema between Fact and Fiction**

Courses in National/International Cinemas may examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Cross-listed with CHIN418T. Credit only granted for CHIN418T and CINE429F. This course explores Chinese/Sinophone films and media that unsettle the boundary between fiction and nonfiction in this class. Course materials under discussion draw on a variety of genres, forms, and approaches: reportage, mockumentary, docudrama, found footage, true crime series, crowd-sourced video remix, filmed reenactments, essay film and ephemeral media of various kinds, etc.

0101	Belinda Qian He	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 1224

CINE441 **Italian Cinema I: Neorealism**

Cross-listed with: ITAL436. Credit only granted for: CINE441, FILM441 or ITAL436. Formerly: FILM441.

Explores representations of Italy in cinema with special focus on identity formation and the movement of Italian neorealism and post neorealism. Taught in English.

0101	Mauro Resmini	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 0122

CINE459L **Special Topics in Genres/Auteurs/Cinema Movements; The Transnational Cinema of Ang Lee**

Special topics in genres, auteurs, and cinema movements.

Cross-listed with ARTH489L and WGSS498K. Credit only granted for ARTH489L, CINE459L or WGSS498K. Students will examine how the award-winning director Ang Lee has been able to explore important issues of culture, gender, race, identity, and values across borders in a transnational world. Films to be studied are from a wide spectrum of genres and may include "The Wedding Banquet," "Sense and Sensibility," "The Ice Storm," "Crouching Tiger, Hidden Dragon," "Hulk," "Brokeback Mountain," "The Life of Pi," and "Gemini Man."

0101	Jason Kuo	Seats (Total: 20)
	W 3:00pm - 5:30pm	ASY 3215

CINE499 **Directed Study in Cinema and Media Studies**

Readings and Research in Film Studies under faculty supervison.

Contact department for information to register for this course.

CLAS Classics Fall 2023

CLAS169M **Special Topics in Study Abroad I; Myths and Legends**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CLAS170 **Ancient Myths and Modern Lives**

Cross-listed with: RELS170. Credit only granted for: CLAS170 or RELS170. Additional information: This course cannot be taken for language credit.

What are myths and why do we tell them? What powers do myths have? We will tackle these questions by looking at the enduring and fascinating myths from ancient Greece and Rome. In addition to studying how they shaped ancient societies, we will also look at their modern influence and reflect upon the power that myths still hold in our contemporary world. Taught in English.

0101	Chiara Graf MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 21) MMH 1400 ASY 3217	Discussion
0102	Chiara Graf MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 KEY 0125	Discussion
0103	Chiara Graf MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 CHM 1224	Discussion
0104	Chiara Graf MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 LEF 1171	Discussion
0105	Chiara Graf MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 HJP 2217	Discussion
0106	Chiara Graf MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 21) MMH 1400 ASY 3207	Discussion
0107	Chiara Graf MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 21) MMH 1400 ASY 3207	Discussion
0108	Chiara Graf MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 MTH B0427	Discussion
0109	Chiara Graf MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 22) MMH 1400 TWS 0207	Discussion

FC01	Eugenia Lao TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) TYD 0102	
FC02	Christina Clark TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) HBK 1112	
FC03	Christina Clark MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) TYD 0111	
FC05	Kathleen Garland W 6:00pm - 7:15pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 25) KEY 0100 ONLINE	

CLAS190 **Discovering the World of Ancient Rome**

Cross-listed with: HIST219T. Credit only granted for: CLAS190 or HIST219T.

An exploration of the cultural traits and developments of ancient Roman civilization from its roots in Etruscan culture, through the rise of the Roman Republic, to the expansion of Roman cultural influence in the ancient world and the emergence of the Roman Empire. Drawing upon the evidence of the archaeological remains as well as ancient historical and literary documents, students gain a basic familiarity with the principal monuments and artifacts of ancient Roman civilization, the various institutions and values that characterized the Romans, and the significant historical events that transformed the culture over the course of antiquity.

0101	Jorge Bravo MW 2:00pm - 3:15pm	Seats (Total: 35) JMZ 2206	

CLAS274 **What is Romance?**

What is romance? This course approaches the question by reading ancient Greek romance novels in tandem with works inspired by them from a range of times and places. We will attempt to identify which traits define romance in a society and how romance narratives change in translation and adaptation.

0101	Katherine Wasdin TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) TWS 0310 TWS 1100	 Discussion

0102	Katherine Wasdin TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) TWS 0310 TWS 0205	Discussion
0103	Katherine Wasdin TuTh 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0310 TWS 0201	Discussion

CLAS305 **Archaeological Methods and Practice**

Prerequisite: ANTH240, ARTH200, or CLAS180. Cross-listed with: ANTH305, ARTH305, JWST319Y. Credit only granted for: ANTH305, ARTH305, CLAS305, or JWST319Y.

A team-taught, interdisciplinary course discussing theories, methods, and ethical issues in the practice of archaeology.

0101	Jorge Bravo TuTh 2:00pm - 3:15pm	Seats (Total: 35) WDS 1114

CLAS312 **The Modernity of Athenian Democracy**

Examines the question of how Ancient Greek thought can be a tool for facing the challenges of the modern world. Topics such as political participation and engagement in politics, lawfulness and justice, freedom and autonomy, democracy and civic responsibility are found at the core of Ancient Greek thought. In addition to these topics, the course explores, through the teachings of ancient Greek philosophers, historians, and poets, the questions of virtue and happiness at a personal level and the pursuit of happiness at the societal level. Love and friendship are necessary virtues to shape a harmonious and prosperous polis. By studying selected excerpts from the primary sources of Ancient Greek literature in translation, the course defines the core values of democratic society from the viewpoint of the Greeks.

0101	Polyvia Parara MW 2:00pm - 3:15pm	Seats (Total: 35) PLS 1111

CLAS374 **Greek Tragedy in Translation**

Study and analysis of the tragedies of Aeschylus, Sophocles and Euripides with special attention to the concepts of character and of thought as conceived by Aristotle in The Poetics.

0101	Francisco Barrenechea TuTh 9:30am - 10:45am	Seats (Total: 35) WDS 1114

CLAS499 **Independent Study in Classical Languages and Literatures**

(Perm req)

Contact department for information to register for this course.

CLFS608 **Seminar in Current Topics in Chemical and Life Science; Scholarly Paper**

(Perm req)

Seminar in current topics in the Life Sciences. Contact Program Director or instructor before registering.

Contact Dr. Brett Kent (bkent@umd.edu) to establish a mentor; and then contact the Office of Extended Studies (exst@umd.edu) to register. Golden ID students are not eligible for this course.

Contact department for information to register for this course.

CLFS608A **Seminar in Current Topics in Chemical and Life Science; Independent Research**

(Perm req)

Seminar in current topics in the Life Sciences. Contact Program Director or instructor before registering.

Contact the Office of Extended Studies (exst@umd.edu) to register. Golden ID students are not eligible for this course.

Contact department for information to register for this course.

CLFS610 **Natural Products Chemistry**

Restriction: Permission of CMNS-Chemical & Life Sciences department. Credit only granted for: LFSC609D or LFSC610. Formerly: LFSC609D.

Foundations of natural products chemistry; how nature goes about making (biosynthesizing) these compounds and elements of enzymology and genomics relevant to production of these compounds; relevance of natural products chemistry as a driving force for drug discovery and innovation in biotechnology.

Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this course.

Click here for program information.

PLC1	Marjan Alaghmand	Seats (Total: 8)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE

CMLT Comparative Literature Fall 2023

CMLT235 **Black Diaspora Literature and Culture**

Examination of key works by writers of the African Diaspora. Relationship among black people across multiple geographic spaces; Africa, the Caribbean, the United States, Europe, Latin America, and Asia. Specific historical, cultural, and literary contexts; themes such as gender, sexuality, migration, slavery, freedom, and equality. Readings may include literary texts (fiction, poetry, drama), music and film. All readings in English, but drawn from multiple languages of the black diaspora, including English, Spanish, French and Portuguese.

0101	Chauncey Dennie TuTh 9:30am - 10:45am	Seats (Total: 30) TWS 1106

CMLT269C **Special Topics in Study Abroad II; Modern Catalan Literature**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CMLT270 **Global Literature and Social Change**

Comparative study of literature through selected literary works from several non-Western cultures, viewed cross-culturally in light of particular social, political, and economic perspectives.

0101	Daniel Sidman TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 1320
0201	Mehdy Sedaghat Payam MWF 11:00am - 11:50am	Seats (Total: 30) TWS 0214

CMLT275 **World Literature by Women**

Cross-listed with: WGSS275. Credit only granted for: WMST275, CMLT275 or WGSS275. Formerly: WMST275.

Comparative study of selected works by women writers of several countries, exploring points of intersection and divergence in women's literary representations.

0201	Ariana Nash MW 2:00pm - 3:15pm	Seats (Total: 30) TWS 0214

CMLT277 **Literatures of the Americas**

Comparative study of several North, South, and Central American cultures with a focus on the specificities, similarities, and divergences of their literary and cultural texts.

0101	Jesse Brooks TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 0234

CMLT280 **Film Art in a Global Society**

Cross-listed with: CINE280. Credit only granted for: CINE280, FILM298D or CMLT280. Formerly: FILM298D.

Comparative study of a variety of film traditions from around the world, including cinema from Hollywood, Europe, Asia and developing countries, with a stress on different cultural contexts for film-making and viewing.

0101	William Pittman MWF 1:00pm - 1:50pm	Seats (Total: 30) TWS 0234
0201	Anthony Obute TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 1106

CMLT369A **Special Topics in Study Abroad III; Postcolonial Literatures in English I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CMLT369T **Special Topics in Study Abroad III; Politics and Literature in the 20th Century**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CMLT369X **Special Topics in Study Abroad III; Shakespeare and Lope de Vega**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CMLT386 **Experiential Learning**

(Perm req)

Restriction: Junior standing or higher; and permission of ARHU-English department.

Contact department for information to register for this course.

CMLT398L **Special Topics in Comparative Studies; Sexuality in the Cinema**

Special topics in comparitive studies.

Cross-listed with ENGL329C. Credit will be granted for only one of the following: CMLT398L, CMLT498L, or ENGL329C.

0101	Eugene Robinson Class time/details on ELMs	Seats (Total: 25) ONLINE

CMLT398N **Special Topics in Comparative Studies; Gypsy Culture**

Special topics in comparitive studies.

Cross-listed with ENGL379V. Credit will be granted for only one of the following: CMLT398N, CMLT498N, or ENGL379V.

0101	Eugene Robinson Class time/details on ELMs	Seats (Total: 25) ONLINE

CMLT398T **Special Topics in Comparative Studies; Postcolonial Literature in English I**

Special topics in comparitive studies.

Contact department for information to register for this course.

CMLT498V **Selected Topics in Comparative Studies; Lost in Translation**
Contact department for information to register for this course.

CMLT699 **Independent Study**

(Perm req)

Research and writing on specific readings on a topic selected by the student which is approved and supervised by a faculty member.

Contact department for information to register for this course.

CMLT799 **Master's Thesis Research**
Contact department for information to register for this course.

CMLT898 **Pre-Candidacy Research**
Contact department for information to register for this course.

CMLT899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

CMSC Computer Science Fall 2023

CMSC100 **Bits and Bytes of Computer and Information Sciences**

Restriction: For first time freshmen and first time transfer students; or permission of CMNS-Computer Science department. Cross-listed with: INST101. Credit only granted for: CMSC100 or INST101.

Students are introduced to the fields (and disciplines) of computer science and information science within a small classroom setting. They will learn to make a successful transition from high school to the university, while exploring study skills, student success plans and research opportunities.

0101	Jenyia Wilson M 12:00pm - 12:50pm	Seats (Total: 40) CSI 2117
0201	Diana Bridgett F 11:00am - 11:50am	Seats (Total: 40) IRB 2207
0301	Brennan Rudy Th 9:30am - 10:20am	Seats (Total: 40) IRB 2207
0401	Ronaisha Ruth F 10:00am - 10:50am	Seats (Total: 35) CSI 2107

CMSC106 **Introduction to C Programming**

Prerequisite: MATH115. Restriction: Must not be in Computer Science program; and must not have completed any courses from CMSC131-499 course range. Credit only granted for: CMSC106 or CMSC122.

Design and analysis of programs in C. An introduction to computing using structured programming concepts. Intended for students with no or minimal programming experience.

0101	Maksym Morawski	Seats (Total: 50)	
	TuTh 12:30pm - 1:45pm	IRB 2207	
	TuTh 5:00pm - 5:50pm	IRB 2207	Discussion

CMSC122 **Introduction to Computer Programming via the Web**

Restriction: Must not have completed any courses from CMSC131-499 course range; and must not be concurrently enrolled in CMSC131. Credit only granted for: CMSC106, or CMSC122.

Introduction to computer programming in the context of developing full featured dynamic web sites. Uses a problem solving approach to teach basics of program design and implementation using JavaScript; relates these skills to creation of dynamic web sites; then explores both the potential and limits of web-based information sources for use in research. Intended to help relate a student's major to these emerging technologies.

0101	Pedram Sadeghian	Seats (Total: 95)
	MWF 11:00am - 11:50am	IRB 0318
FC01	Jennifer Manly	Seats (Total: 64)
	TuTh 4:30pm - 5:45pm	JMP 3201
	Restricted to students in Freshmen Connection.	

CMSC125 **Introduction to Computing**

Prerequisite: Must have completed or be concurrently enrolled in MATH115 or higher. Restriction: Must not be in the Computer Science program; and must not have completed any courses from CMSC131-499; and must not have completed BMGT302, IMDM127 or INST126. Credit only granted for: IMDM127 or CMSC125.

Introduces you to the computing field as a whole. You will gain skills used across the spectrum of computing majors and learn about the great variety of routes into the various areas of study and employment in technological fields.

0101	Elias Gonzalez	Seats (Total: 80)
	MW 2:00pm - 3:15pm	CSI 3117

CMSC131 **Object-Oriented Programming I**

Corequisite: MATH140. Credit only granted for: CMSC131, CMSC133 or CMSC141.

Introduction to programming and computer science. Emphasizes understanding and implementation of applications using object-oriented techniques. Develops skills such as program design and testing as well as implementation of programs using a graphical IDE. Programming done in Java.

0101	Nelson Padua-Perez MWF 2:00pm - 2:50pm MW 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 CSI 2118	 Discussion
0102	Nelson Padua-Perez MWF 2:00pm - 2:50pm MW 1:00pm - 1:50pm	Seats (Total: 34) IRB 0324 CSI 2120	 Discussion
0103	Nelson Padua-Perez MWF 2:00pm - 2:50pm MW 8:00am - 8:50am	Seats (Total: 32) IRB 0324 CSI 1121	 Discussion
0104	Nelson Padua-Perez MWF 2:00pm - 2:50pm MW 1:00pm - 1:50pm	Seats (Total: 34) IRB 0324 CSI 2117	 Discussion
0105	Nelson Padua-Perez MWF 2:00pm - 2:50pm MW 1:00pm - 1:50pm	Seats (Total: 34) IRB 0324 CSI 3117	 Discussion
0106	Nelson Padua-Perez MWF 2:00pm - 2:50pm MW 11:00am - 11:50am	Seats (Total: 34) IRB 0324 CSI 3117	 Discussion
0107	Nelson Padua-Perez MWF 2:00pm - 2:50pm MW 9:00am - 9:50am	Seats (Total: 34) IRB 0324 EGR 1104	 Discussion
0108	Nelson Padua-Perez MWF 2:00pm - 2:50pm MW 9:00am - 9:50am	Seats (Total: 34) IRB 0324 EGR 2154	 Discussion
0201	Nelson Padua-Perez MWF 3:00pm - 3:50pm MW 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 CSI 2120	 Discussion
0202	Nelson Padua-Perez MWF 3:00pm - 3:50pm MW 1:00pm - 1:50pm	Seats (Total: 34) IRB 0324 CSI 2118	 Discussion

0203	Nelson Padua-Perez MWF 3:00pm - 3:50pm MW 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 CSI 3120	 Discussion
0204	Nelson Padua-Perez MWF 3:00pm - 3:50pm MW 8:00am - 8:50am	Seats (Total: 34) IRB 0324 CSI 1122	 Discussion
0205	Nelson Padua-Perez MWF 3:00pm - 3:50pm MW 2:00pm - 2:50pm	Seats (Total: 34) IRB 0324 CSI 2120	 Discussion
0206	Nelson Padua-Perez MWF 3:00pm - 3:50pm MW 2:00pm - 2:50pm	Seats (Total: 34) IRB 0324 CSI 2118	 Discussion
0207	Nelson Padua-Perez MWF 3:00pm - 3:50pm MW 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 MTH 0304	 Discussion
0208	Nelson Padua-Perez MWF 3:00pm - 3:50pm MW 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 MTH 0306	 Discussion
0301	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 9:30am - 10:20am	Seats (Total: 32) IRB 0324 CSI 2118	 Discussion
0302	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 8:00am - 8:50am	Seats (Total: 32) IRB 0324 CSI 2118	 Discussion
0303	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 34) IRB 0324 CSI 2118	 Discussion
0304	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 34) IRB 0324 CSI 2118	 Discussion

0305	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 34) IRB 0324 CSI 2118	Discussion
0307	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 4:00pm - 4:50pm	Seats (Total: 32) IRB 0324 CSI 2118	Discussion
0309	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 9:30am - 10:20am	Seats (Total: 32) IRB 0324 CSI 2120	Discussion
0401	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 8:00am - 8:50am	Seats (Total: 32) IRB 0324 CSI 3118	Discussion
0402	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 9:30am - 10:20am	Seats (Total: 32) IRB 0324 CSI 2107	Discussion
0403	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 32) IRB 0324 CSI 2107	Discussion
0404	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 32) IRB 0324 CSI 2107	Discussion
0405	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 32) IRB 0324 CSI 2107	Discussion
0406	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 3:30pm - 4:20pm	Seats (Total: 32) IRB 0324 CSI 2107	Discussion
0407	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 32) IRB 0324 CSI 3118	Discussion

0408	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 5:00pm - 5:50pm	Seats (Total: 32) IRB 0324 CSI 2107	Discussion
0409	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 32) IRB 0324 CSI 2120	Discussion
FC01	Elias Gonzalez MTuW 6:00pm - 6:50pm MW 7:00pm - 7:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 32) HJP 0226 KEY 0116	Discussion
FC02	Elias Gonzalez MTuW 6:00pm - 6:50pm MW 7:00pm - 7:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 32) HJP 0226 MMH 1304	Discussion
FC03	Elias Gonzalez MTuW 6:00pm - 6:50pm MW 7:00pm - 7:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 32) HJP 0226 SKN 1115	Discussion
FC04	Elias Gonzalez MTuW 6:00pm - 6:50pm TuF 3:00pm - 3:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 32) HJP 0226 CSI 2118	Discussion
FC05	Elias Gonzalez MTuW 6:00pm - 6:50pm TuF 3:00pm - 3:50pm	Seats (Total: 32) HJP 0226 CHE 2136	Discussion

CMSC132 **Object-Oriented Programming II**

Prerequisite: Minimum grade of C- in CMSC131; or must have earned a score of 5 on the A Java AP exam; or must have earned a satisfactory score on the departmental placement exam; and minimum grade of C- in MATH140. Credit only granted for: CMSC132 or CMSC142.

Introduction to use of computers to solve problems using software engineering principles. Design, build, test, and debug medium -size software systems and learn to use relevant tools. Use object-oriented methods to create effective and efficient problem solutions. Use and implement application programming interfaces (APIs). Programming done in Java.

0101	Fawzi Emad MWF 10:00am - 10:50am MW 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 CSI 1122	 Discussion
0102	Fawzi Emad MWF 10:00am - 10:50am MW 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 CSI 1121	 Discussion
0103	Fawzi Emad MWF 10:00am - 10:50am MW 1:00pm - 1:50pm	Seats (Total: 34) IRB 0324 CSI 1121	 Discussion
0104	Fawzi Emad MWF 10:00am - 10:50am MW 2:00pm - 2:50pm	Seats (Total: 34) IRB 0324 CSI 1121	 Discussion
0105	Fawzi Emad MWF 10:00am - 10:50am MW 2:00pm - 2:50pm	Seats (Total: 34) IRB 0324 CSI 1122	 Discussion
0106	Fawzi Emad MWF 10:00am - 10:50am MW 3:00pm - 3:50pm	Seats (Total: 34) IRB 0324 CSI 1122	 Discussion
0107	Fawzi Emad MWF 10:00am - 10:50am MW 4:00pm - 4:50pm	Seats (Total: 32) IRB 0324 CSI 1122	 Discussion
0108	Fawzi Emad MWF 10:00am - 10:50am MW 3:00pm - 3:50pm	Seats (Total: 32) IRB 0324 CSI 1121	 Discussion
0109	Fawzi Emad MWF 10:00am - 10:50am MW 5:00pm - 5:50pm	Seats (Total: 32) IRB 0324 CSI 1122	 Discussion
0201	Fawzi Emad MWF 11:00am - 11:50am MW 12:00pm - 12:50pm	Seats (Total: 36) IRB 0324 IRB 2107	 Discussion

0202	Fawzi Emad MWF 11:00am - 11:50am MW 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 CSI 1122	 Discussion
0203	Fawzi Emad MWF 11:00am - 11:50am MW 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 CSI 2107	 Discussion
0204	Fawzi Emad MWF 11:00am - 11:50am MW 2:00pm - 2:50pm	Seats (Total: 36) IRB 0324 CSI 2107	 Discussion
0205	Fawzi Emad MWF 11:00am - 11:50am MW 3:00pm - 3:50pm	Seats (Total: 36) IRB 0324 CSI 2107	 Discussion
0206	Fawzi Emad MWF 11:00am - 11:50am MW 4:00pm - 4:50pm	Seats (Total: 36) IRB 0324 CSI 2107	 Discussion
0207	Fawzi Emad MWF 11:00am - 11:50am MW 5:00pm - 5:50pm	Seats (Total: 36) IRB 0324 CSI 2107	 Discussion
0209	Fawzi Emad MWF 11:00am - 11:50am MW 4:00pm - 4:50pm	Seats (Total: 36) IRB 0324 CSI 1121	 Discussion
0301	Fawzi Emad MWF 12:00pm - 12:50pm MW 9:00am - 9:50am	Seats (Total: 35) CSI 1115 CSI 1122	 Discussion
0302	Fawzi Emad MWF 12:00pm - 12:50pm MW 9:00am - 9:50am	Seats (Total: 35) CSI 1115 CSI 2107	 Discussion
0303	Fawzi Emad MWF 12:00pm - 12:50pm MW 10:00am - 10:50am	Seats (Total: 35) CSI 1115 CSI 2107	 Discussion

0304	Fawzi Emad MWF 12:00pm - 12:50pm MW 11:00am - 11:50am	Seats (Total: 35) CSI 1115 CSI 2107	 Discussion

CMSC133 **Object Oriented Programming I Beyond Fundamentals**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in MATH140. Restriction: Permission of CMNS-Computer Science department; and student must have earned a 4 on the AP Computer Science A exam or a satisfactory score on the CMSC131 department placement exam. Credit only granted for: CMSC131 or CMSC133.

An introduction to computer science and object-oriented programming for students with prior Java programming knowledge (conditionals, loops, methods). Program design, implementation, and testing using object-oriented techniques. All programming will be done in Java using a graphical IDE.

0101	Nelson Padua-Perez M 12:00pm - 1:15pm F 1:00pm - 1:50pm	Seats (Total: 55) ESJ 2309 CSI 2117	 Discussion

CMSC141 **Programming with Purpose I: Data-Centric Computing**

Corequisite: MATH140. Credit only granted for: CMSC131, CMSC133, or CMSC141.

An introduction to computing and programming that focuses on understanding and manipulating data. Students will learn to write programs to process both tabular and structured data, to assess programs both experimentally and theoretically, to apply basic data science concepts, and to discuss big ideas around the communication, use, and social impacts of digital information.

0101	Jose Calderon MWF 9:00am - 9:50am TuTh 2:00pm - 2:50pm	Seats (Total: 32) IRB 0318 PHY 2106	 Discussion
0102	Jose Calderon MWF 9:00am - 9:50am TuTh 9:30am - 10:20am	Seats (Total: 32) IRB 0318 IRB 1207	 Discussion
0103	Jose Calderon MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 32) IRB 0318 CSI 3118	 Discussion

CMSC216 **Introduction to Computer Systems**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC132; and minimum grade of C- in MATH141. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permission of CMSC - Computer Science department.

Introduction to the interaction between user programs and the operating system/hardware. Major topics include C programming, introductory systems programming, and assembly language. Other concepts covered include UNIX, machine data representation, thread management, optimization, and virtual memory. Programming is done in the Linux Environment.

0101	Ilchul Yoon TuTh 9:30am - 10:45am MW 12:00pm - 12:50pm	Seats (Total: 36) IRB 0324 IRB 1207	Discussion
0102	Ilchul Yoon TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 36) IRB 0324 CSI 1121	Discussion
0103	Ilchul Yoon TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 36) IRB 0324 CSI 1121	Discussion
0104	Ilchul Yoon TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 36) IRB 0324 CSI 1122	Discussion
0105	Ilchul Yoon TuTh 9:30am - 10:45am MW 11:00am - 11:50am	Seats (Total: 36) IRB 0324 CSI 1121	Discussion
0106	Ilchul Yoon TuTh 9:30am - 10:45am MW 11:00am - 11:50am	Seats (Total: 36) IRB 0324 CSI 1122	Discussion
0107	Ilchul Yoon TuTh 9:30am - 10:45am MW 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 IRB 1207	Discussion
0108	Ilchul Yoon TuTh 9:30am - 10:45am MW 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 IRB 2107	Discussion

0201	Larry Herman TuTh 2:00pm - 3:15pm MW 8:00am - 8:50am	Seats (Total: 36) ESJ 0202 IRB 2207	Discussion
0202	Larry Herman TuTh 2:00pm - 3:15pm MW 9:00am - 9:50am	Seats (Total: 36) ESJ 0202 IRB 2107	Discussion
0203	Larry Herman TuTh 2:00pm - 3:15pm MW 3:00pm - 3:50pm	Seats (Total: 36) ESJ 0202 IRB 2207	Discussion
0204	Larry Herman TuTh 2:00pm - 3:15pm MW 10:00am - 10:50am	Seats (Total: 36) ESJ 0202 IRB 2107	Discussion
0205	Larry Herman TuTh 2:00pm - 3:15pm MW 10:00am - 10:50am	Seats (Total: 36) ESJ 0202 IRB 1207	Discussion
0206	Larry Herman TuTh 2:00pm - 3:15pm MW 4:00pm - 4:50pm	Seats (Total: 36) ESJ 0202 IRB 2207	Discussion
0207	Larry Herman TuTh 2:00pm - 3:15pm MW 11:00am - 11:50am	Seats (Total: 36) ESJ 0202 IRB 1207	Discussion
0208	Larry Herman TuTh 2:00pm - 3:15pm MW 2:00pm - 2:50pm	Seats (Total: 36) ESJ 0202 IRB 2207	Discussion
0301	Larry Herman TuTh 12:30pm - 1:45pm MW 8:00am - 8:50am	Seats (Total: 36) ESJ 0202 IRB 2107	Discussion
0302	Larry Herman TuTh 12:30pm - 1:45pm MW 9:00am - 9:50am	Seats (Total: 36) ESJ 0202 IRB 1207	Discussion

0303	Larry Herman TuTh 12:30pm - 1:45pm MW 9:00am - 9:50am	Seats (Total: 36) ESJ 0202 IRB 2207	Discussion
0304	Larry Herman TuTh 12:30pm - 1:45pm MW 10:00am - 10:50am	Seats (Total: 36) ESJ 0202 IRB 2207	Discussion
0305	Larry Herman TuTh 12:30pm - 1:45pm MW 11:00am - 11:50am	Seats (Total: 36) ESJ 0202 IRB 2107	Discussion
0306	Larry Herman TuTh 12:30pm - 1:45pm MW 11:00am - 11:50am	Seats (Total: 36) ESJ 0202 IRB 2207	Discussion
0307	Larry Herman TuTh 12:30pm - 1:45pm MW 12:00pm - 12:50pm	Seats (Total: 36) ESJ 0202 IRB 2207	Discussion
0308	Larry Herman TuTh 12:30pm - 1:45pm MW 1:00pm - 1:50pm	Seats (Total: 36) ESJ 0202 IRB 2207	Discussion
0309	Larry Herman TuTh 12:30pm - 1:45pm MW 2:00pm - 2:50pm	Seats (Total: 36) ESJ 0202 IRB 1207	Discussion
0401	Christopher Kauffman, David Mount TuTh 3:30pm - 4:45pm MW 12:00pm - 12:50pm	Seats (Total: 36) ESJ 2208 CSI 3117	Discussion
0402	David Mount, Christopher Kauffman TuTh 3:30pm - 4:45pm MW 3:00pm - 3:50pm	Seats (Total: 36) ESJ 2208 CSI 2118	Discussion
0403	Christopher Kauffman, David Mount TuTh 3:30pm - 4:45pm MW 3:00pm - 3:50pm	Seats (Total: 36) ESJ 2208 CSI 2120	Discussion

0404	Christopher Kauffman, David Mount TuTh 3:30pm - 4:45pm MW 4:00pm - 4:50pm	Seats (Total: 36) ESJ 2208 CSI 2118	 Discussion

CMSC250 **Discrete Structures**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC131; and minimum grade of C- in MATH141. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permissions of CMSC - Computer Science department.

Fundamental mathematical concepts related to computer science, including finite and infinite sets, relations, functions, and propositional logic. Introduction to other techniques, modeling and solving problems in computer science. Introduction to permutations, combinations, graphs, and trees with selected applications.

0101	Paul Kline TuTh 2:00pm - 3:15pm MW 8:00am - 8:50am	Seats (Total: 36) IRB 0324 CSI 2118	 Discussion
0102	Paul Kline TuTh 2:00pm - 3:15pm MW 9:00am - 9:50am	Seats (Total: 36) IRB 0324 CSI 2118	 Discussion
0103	Paul Kline TuTh 2:00pm - 3:15pm MW 9:00am - 9:50am	Seats (Total: 38) IRB 0324 CSI 2120	 Discussion
0104	Paul Kline TuTh 2:00pm - 3:15pm MW 10:00am - 10:50am	Seats (Total: 38) IRB 0324 CSI 2118	 Discussion
0105	Paul Kline TuTh 2:00pm - 3:15pm MW 2:00pm - 2:50pm	Seats (Total: 38) IRB 0324 CSI 3118	 Discussion
0106	Paul Kline TuTh 2:00pm - 3:15pm MW 11:00am - 11:50am	Seats (Total: 38) IRB 0324 CSI 2118	 Discussion

0107	Paul Kline TuTh 2:00pm - 3:15pm MW 11:00am - 11:50am	Seats (Total: 38) IRB 0324 CSI 3118	Discussion
0108	Paul Kline TuTh 2:00pm - 3:15pm MW 1:00pm - 1:50pm	Seats (Total: 38) IRB 0324 CSI 3120	Discussion
0201	Mohammad Nayeem Teli TuTh 3:30pm - 4:45pm MW 8:00am - 8:50am	Seats (Total: 36) IRB 0324 CSI 3118	Discussion
0202	Mohammad Nayeem Teli TuTh 3:30pm - 4:45pm MW 12:00pm - 12:50pm	Seats (Total: 36) IRB 0324 CSI 2107	Discussion
0203	Mohammad Nayeem Teli TuTh 3:30pm - 4:45pm MW 9:00am - 9:50am	Seats (Total: 38) IRB 0324 CSI 3120	Discussion
0204	Mohammad Nayeem Teli TuTh 3:30pm - 4:45pm MW 10:00am - 10:50am	Seats (Total: 38) IRB 0324 CSI 3120	Discussion
0205	Mohammad Nayeem Teli TuTh 3:30pm - 4:45pm MW 11:00am - 11:50am	Seats (Total: 38) IRB 0324 CSI 3120	Discussion
0206	Mohammad Nayeem Teli TuTh 3:30pm - 4:45pm MW 12:00pm - 12:50pm	Seats (Total: 38) IRB 0324 CSI 3118	Discussion
0207	Mohammad Nayeem Teli TuTh 3:30pm - 4:45pm MW 1:00pm - 1:50pm	Seats (Total: 38) IRB 0324 CSI 3118	Discussion
0208	Mohammad Nayeem Teli TuTh 3:30pm - 4:45pm MW 2:00pm - 2:50pm	Seats (Total: 38) IRB 0324 CSI 3120	Discussion

0301	Maksym Morawski TuTh 11:00am - 12:15pm MW 9:00am - 9:50am	Seats (Total: 38) ESJ 0202 CSI 3118	Discussion
0302	Maksym Morawski TuTh 11:00am - 12:15pm MW 10:00am - 10:50am	Seats (Total: 38) ESJ 0202 CSI 2120	Discussion
0303	Maksym Morawski TuTh 11:00am - 12:15pm MW 10:00am - 10:50am	Seats (Total: 38) ESJ 0202 CSI 3118	Discussion
0304	Maksym Morawski TuTh 11:00am - 12:15pm MW 11:00am - 11:50am	Seats (Total: 38) ESJ 0202 CSI 2120	Discussion
0305	Maksym Morawski TuTh 11:00am - 12:15pm MW 8:00am - 8:50am	Seats (Total: 30) ESJ 0202 CSI 2107	Discussion
0306	Maksym Morawski TuTh 11:00am - 12:15pm MW 8:00am - 8:50am	Seats (Total: 30) ESJ 0202 CSI 2120	Discussion
0307	Maksym Morawski TuTh 11:00am - 12:15pm MW 9:00am - 9:50am	Seats (Total: 30) ESJ 0202 EGR 0135	Discussion
0308	Maksym Morawski TuTh 11:00am - 12:15pm MW 12:00pm - 12:50pm	Seats (Total: 32) ESJ 0202 CHE 2108	Discussion
0309	Maksym Morawski TuTh 11:00am - 12:15pm MW 1:00pm - 1:50pm	Seats (Total: 32) ESJ 0202 CHE 2118	Discussion

CMSC298A **Special Topics in Computer Science**

(Perm req)

A course designed to allow a lower level student to pursue a specialized topic or project.

Contact department for information to register for this course.

CMSC320 **Introduction to Data Science**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: CMSC320, DATA320 or STAT426.

An introduction to the data science pipeline, i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of several topics including statistical data analysis, basic data mining and machine learning algorithms, large-scale data management, cloud computing, and information visualization.

0101	Maksym Morawski TuTh 3:30pm - 4:45pm	Seats (Total: 240) ESJ 0224	
0201	Fardina Alam MW 3:30pm - 4:45pm	Seats (Total: 240) ESJ 0224	

CMSC330 **Organization of Programming Languages**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in the Computer Science Minor program; or must be in Engineering: Computer program; and Permission of CMSC - Computer Science department.

A study of programming languages, including their syntax, semantics, and implementation. Several different models of languages are discussed, including dynamic, scripting (e.g., Ruby, Python) functional (e.g., OCaml, Haskell, Scheme), and memory safe systems programming (e.g., Rust). Explores language features such as formal syntax, scoping and binding of variables, higher-order programming, typing, and type polymorphism. Introduces finite automata, context free grammar, parsing, lambda calculus, and basics of security attacks and software security.

0101	Cliff Bakalian TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 36) IRB 0324 IRB 2107	 Discussion
0102	Cliff Bakalian TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 36) IRB 0324 IRB 1207	 Discussion
0103	Cliff Bakalian TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 36) IRB 0324 IRB 1207	 Discussion
0104	Cliff Bakalian TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 36) IRB 0324 IRB 2107	 Discussion

0105	Cliff Bakalian TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 IRB 1207	Discussion
0106	Cliff Bakalian TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 IRB 2107	Discussion
0107	Cliff Bakalian TuTh 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 36) IRB 0324 IRB 2107	Discussion
0108	Cliff Bakalian TuTh 11:00am - 12:15pm F 3:00pm - 3:50pm	Seats (Total: 36) IRB 0324 IRB 2107	Discussion
0201	Cliff Bakalian TuTh 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 36) IRB 0324 IRB 2207	Discussion
0202	Cliff Bakalian TuTh 12:30pm - 1:45pm F 9:00am - 9:50am	Seats (Total: 36) IRB 0324 IRB 1207	Discussion
0203	Cliff Bakalian TuTh 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 36) IRB 0324 IRB 2107	Discussion
0204	Cliff Bakalian TuTh 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 36) IRB 0324 IRB 2107	Discussion
0205	Cliff Bakalian TuTh 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 36) IRB 0324 IRB 1207	Discussion
0206	Cliff Bakalian TuTh 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 IRB 2207	Discussion

0207	Cliff Bakalian TuTh 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 36) IRB 0324 IRB 2207	Discussion
0208	Cliff Bakalian TuTh 12:30pm - 1:45pm F 3:00pm - 3:50pm	Seats (Total: 36) IRB 0324 IRB 2207	Discussion
0301	Christopher Kauffman TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 36) ESJ 2208 CSI 2118	Discussion
0302	Christopher Kauffman TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 36) ESJ 2208 CSI 2107	Discussion
0303	Christopher Kauffman TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 36) ESJ 2208 CSI 2120	Discussion
0304	Christopher Kauffman TuTh 9:30am - 10:45am F 2:00pm - 2:50pm	Seats (Total: 36) ESJ 2208 CSI 2120	Discussion

CMSC335 **Web Application Development with JavaScript**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250. Restriction: Permission of CMNS-Computer Science Department. Credit only granted for: CMSC389N or CMSC335. Formerly: CMSC389N.

Provides an introduction to modern ways of developing Web Applications/Services using JavaScript for both front-end and back-end. The course covers topics on fundamental JavaScript language constructs, server-side JavaScript, back-end data persistence, and client-side JavaScript to build Web Applications that interact with Web services and back-end databases.

0101	Nelson Padua-Perez MW 5:00pm - 6:15pm	Seats (Total: 416) TYD 0130	

CMSC351 **Algorithms**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permission from the CMSC - Computer Science department.

A systematic study of the complexity of some elementary algorithms related to sorting, graphs and trees, and combinatorics. Algorithms are analyzed using mathematical techniques to solve recurrences and summations.

0101	Justin Wyss-Gallifent MWF 9:00am - 9:50am	Seats (Total: 300) IRB 0324
0201	Clyde Kruskal MWF 4:00pm - 4:50pm	Seats (Total: 290) IRB 0324
0301	Herve Franceschi MWF 1:00pm - 1:50pm	Seats (Total: 145) CSI 1115

CMSC351H **Algorithms**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permission from the CMSC - Computer Science department.

A systematic study of the complexity of some elementary algorithms related to sorting, graphs and trees, and combinatorics. Algorithms are analyzed using mathematical techniques to solve recurrences and summations.

0101	Emily Kaplitz, Auguste Gezalyan MWF 10:00am - 10:50am	Seats (Total: 44) CHE 2118

CMSC388J **Special Topics in Computer Science; Building Secure Web Applications with Python and Flask**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. Flask is a widely used web framework written in Python. Students will first get an introduction to Python and Flask and transition to web application security, where they'll learn about different types of security vulnerabilities and best practices to patch up these vulnerabilities in their own apps. We'll also cover building and authenticating an API, andhow to deploy an app!

0101	Michael Marsh F 2:00pm - 2:50pm	Seats (Total: 40) CSI 1121

CMSC388Y **Special Topics in Computer Science; History of Computer Science and Digital Technologies**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. An investigation of the history and evolution of computer science from its early foundations through the atomic age, the Y2K Bug, the internet revolution, the present day, and beyond. This course will cover not only the people and work behind the advances in computing, but also the technologies of yesteryear that eventually evolved into the devices thathave become ubiquitous today. We will observe how computing has impacted society throughout time, and the reactions to its advances through the normalization of digital technologies.

0101	Roger Eastman F 3:00pm - 3:50pm	Seats (Total: 30) IRB 1207

CMSC389G **Special Topics in Computer Science; What to do After Landing a SWE Job**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. Students are given a scoped experience of a Software Engineering industry job and relevant tools/practices to accelerate acclimation to afuture SWE Intern or Full-Time role. Topics/Skills covered include: Git,Code Reviews, AWS basics, Design Docs, unit testing, virtual machines, etc. Students will contribute to a complex code base to simulate designing, implementing, and testing new features in a professional setting.

0101	David Mount F 12:00pm - 12:50pm	Seats (Total: 30) CSI 2120

CMSC389O **Special Topics in Computer Science; The Coding Interview**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. Technical interviewing is a critical skill for acquiring internships and jobs. Students will gain a comprehensive, practical introduction to technical interviews. Students will be introduced to basic topics such as Big O and String Manipulation and later move into more complex topicssuch as Graphs and Dynamic Programming. Most in-class time will bespenton mock interviews to give real interview practice. The course facilitators are experienced in interviewing and have received internship/job offers from companies like Meta, Optiver, Bloomberg, Amazon, Apple, Microsoft, Databricks, Capital One, and more.

0101	Thomas Goldstein F 11:00am - 11:50am	Seats (Total: 30) CSI 2107
0201	Thomas Goldstein F 12:00pm - 12:50pm	Seats (Total: 30) CSI 1121
0301	Thomas Goldstein F 1:00pm - 1:50pm	Seats (Total: 30) CSI 2118
0401	Thomas Goldstein F 2:00pm - 2:50pm	Seats (Total: 30) CSI 2118
0501	Thomas Goldstein F 3:00pm - 3:50pm	Seats (Total: 30) CSI 2120

CMSC389P **Special Topics in Computer Science; Mastering the PM Interview**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. Prepares students for PM interviews in the technology industry. The class will be a combination of lectures and in-class activities that will provide hands-on practice for PM roles. We will begin with interview questions involving behavioral and technical concepts, and transition tomore complex PM-specific topics including product design, analytical, and case questions.

0101	Huaishu Peng F 12:00pm - 12:50pm	Seats (Total: 30) CSI 3120

CMSC389T **Special Topics in Computer Science; Introduction to Git, Github and Project Management**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. Version control and collaboration are essential skills for developers to learn. Students will learn how to use Git for basic and advanced workflows, GitHub for team and project management, and explore tools to help them excel in a DevOps environment.

0101	Cliff Bakalian F 1:00pm - 1:50pm	Seats (Total: 42) CSI 1122

CMSC390 **Honors Paper**

(Perm req)

Restriction: Must be admitted to the Computer Science Honors Program.

Special study or research directed toward preparation of honors paper.

Contact department for information to register for this course.

CMSC395 **Teaching Techniques for Computer Science**

(Perm req)

Restriction: Students must be hired as a teaching assistant in the Computer Science Department for the semester they are registered for the course; and permission of the Computer Science Department.

This course will assure that teaching assistants become better skilled at applying effective teaching practices that improve the classroom environment while learning methods to implement mechanisms to improve diversity and inclusion. Legal and ethical aspects of the role will also be considered. Students in the class will be currently working as a teaching assistant and, therefore, be able to apply what they are learning immediately in their own context.

0101	Aaron Kyei-Asare F 12:00pm - 12:50pm	Seats (Total: 50) CSI 1122

CMSC396H **Computer Science Honors Seminar**

(Perm req)

Prerequisite: Must have admission into Computer Science Departmental Honors Program. Restriction: Permission of CMNS-Computer Science department.

Overview of computer science research activities, techniques, and tools. Diverse research areas will be covered, including systems, networks, artificial intelligence, human-computer interaction, software engineering, graphics, vision, and theory.

0101	Dave Levin W 12:00pm - 12:50pm	Seats (Total: 50) CSI 2117

CMSC398E **Special Topics in Computer Science; Essential Data Science Skill & Techniques**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CNMS-Computer Science department. Students will learn the tools and techniques needed to succeed in the field of data science. They will engage in simulations that allow them to develop SQL/R coding skills, and learn how to effectively present these findings. They will also utilize analytical thinking to solve real-world data science problems.

0101	Justin Wyss-Gallifent	Seats (Total: 30)
	F 1:00pm - 1:50pm	CSI 1121

CMSC398J **Special Topics in Computer Science; Introduction to Combinatorial Game Theory**

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

0101	Wiseley Wong, May Piatt, Grayson Wolf	Seats (Total: 27)
	F 2:00pm - 2:50pm	HBK 1112

CMSC398L **Special Topics in Computer Science; Introduction to Competitive Programming**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. Covers most of the basic techniques and algorithms that are used in competitive programming. Topics include C++ STL, greedy, dynamic programming, divide and conquer, graph algorithms, and data structures. Students will learn different algorithmic techniques and apply these concepts to solve interesting programming problems in practice.

0101	Laxman Dhulipala	Seats (Total: 30)
	F 11:00am - 11:50am	CSI 2120

CMSC398M **Special Topics in Computer Science; Introduction to Product Design with Figma**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250 or permission o f instructor; and permission of CMNS-Computer Science department. An exploration into the world of Figma! Figma is a popular collaborative design tool used by many developers for brainstorming, proof of concepts, and website/application design. We will be exploring the various capabilities of Figma, and how we can create a website or mobile application from a design made on Figma. Students will learn principles of design, create mockups, and build their own website/mobileapp that will look great for resumes and portfolios.

0101	Cliff Bakalian	Seats (Total: 40)
	F 10:00am - 10:50am	CSI 1121

CMSC398N **Special Topics in Computer Science; Ethics in Computer Science**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Introduces students to the different aspects of ethics within Computer Science. There will be 14 different topics, each one focusing on a different issue regarding ethics in the tech industry. Students will learn what to do inthese situations, understand how these issues impact society, and participate in in-class discussions about these topics. After taking this course students should be able to recognize these issues in the real world and be able to use their knowledge to try and better the field.

0101	Elias Gonzalez F 2:00pm - 2:50pm	Seats (Total: 30) IRB 1207	

CMSC411 **Computer Systems Architecture**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: ENEE446 or CMSC411.

Input/output processors and techniques. Intra-system communication, buses, caches. Addressing and memory hierarchies. Microprogramming, parallelism, and pipelining.

0101	Ilchul Yoon TuTh 12:30pm - 1:45pm	Seats (Total: 95) IRB 0318	

CMSC412 **Operating Systems**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and 1 course with a minimum grade of C- from (CMSC414, CMSC417, CMSC420, CMSC430, CMSC433, CMSC435, ENEE440, ENEE457). Restriction: Permission of CMNS-Computer Science department; or must be in one of the following programs (Computer Science (Master's); Computer Science (Doctoral)). Credit only granted for: CMSC412 or ENEE447.

A hands-on introduction to operating systems, including topics in: multiprogramming, communication and synchronization, memory management, IO subsystems, and resource scheduling polices. The laboratory component consists of constructing a small kernel, including functions for device IO, multi-tasking, and memory management.

0101	Ashok Agrawala TuTh 11:00am - 12:15pm MW 10:00am - 10:50am	Seats (Total: 40) IRB 0318 CSI 2117	 Discussion

0102	Ashok Agrawala TuTh 11:00am - 12:15pm MW 11:00am - 11:50am	Seats (Total: 40) IRB 0318 CSI 2117	 Discussion

CMSC414 **Computer and Network Security**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: CMSC414, ENEE459C, or ENEE457.

An introduction to the topic of security in the context of computer systems and networks. Identify, analyze, and solve network-related security problems in computer systems. Fundamentals of number theory, authentication, and encryption technologies, as well as the practical problems that have to be solved in order to make those technologies workable in a networked environment, particularly in the wide-area Internet environment.

0101	Michael Marsh TuTh 3:30pm - 4:45pm	Seats (Total: 156) ESJ 2204
0201	Michelle Mazurek TuTh 9:30am - 10:45am	Seats (Total: 94) IRB 0318

CMSC416 **Introduction to Parallel Computing**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or permission of instructor. Restriction: Permission of CMNS-Computer Science department. Jointly offered with: CMSC616. Credit only granted for: CMSC416, CMSC498X, CMSC616, or CMSC818X. Formerly: CMSC498X.

Introduction to parallel computing. Topics include programming for shared memory and distributed memory parallel architectures, and fundamental issues in design, development, and performance analysis of parallel programs.

0101	Abhinav Bhatele TuTh 2:00pm - 3:15pm	Seats (Total: 100) IRB 0318

CMSC417 **Computer Networks**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Computer networks and architectures. The OSI model including discussion and examples of various network layers. A general introduction to existing network protocols. Communication protocol specification, analysis, and testing.

0101	Samrat Bhattacharjee TuTh 12:30pm - 1:45pm	Seats (Total: 85) CSI 3117

CMSC420 **Advanced Data Structures**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Description, properties, and storage allocation functions of data structures including balanced binary trees, B-Trees, hash tables, skiplists, tries, KD-Trees and Quadtrees. Algorithms for manipulating structures. Applications from areas such as String Processing, Computer Graphics, Information Retrieval, Computer Networks, Computer Vision, and Operating Systems.

0101	Michael Marsh TuTh 2:00pm - 3:15pm	Seats (Total: 156) ESJ 2204
0201	Hanan Samet TuTh 9:30am - 10:45am	Seats (Total: 40) CSI 2117
0301	Justin Wyss-Gallifent TuTh 11:00am - 12:15pm	Seats (Total: 145) CSI 1115
0401	Justin Wyss-Gallifent TuTh 12:30pm - 1:45pm	Seats (Total: 145) CSI 1115

CMSC421 **Introduction to Artificial Intelligence**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Introduces a range of ideas and methods in AI, varying semester to semester but chosen largely from: automated heuristic search, planning, games, knowledge representation, logical and statistical inference, learning, natural language processing, vision, robotics, cognitive modeling, and intelligent agents. Programming projects will help students obtain a hands-on feel for various topics.

0101	Tianyi Zhou MW 3:30pm - 4:45pm	Seats (Total: 145) CSI 1115

0201	Yantian Zha TuTh 9:30am - 10:45am	Seats (Total: 80) IRB 1116

CMSC422 **Introduction to Machine Learning**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC320, CMSC330, and CMSC351; and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and permission of CMNS-Computer Science department.

Machine Learning studies representations and algorithms that allow machines to improve their performance on a task from experience. This is a broad overview of existing methods for machine learning and an introduction to adaptive systems in general. Emphasis is given to practical aspects of machine learning and data mining.

0101	Mohammad Nayeem Teli TuTh 11:00am - 12:15pm	Seats (Total: 158) EGR 1202

CMSC423 **Bioinformatic Algorithms, Databases, and Tools**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

An introduction to the main algorithms, databases, and tools used in bioinformatics. Topics may include assembly and analysis of genome sequences, reconstructing evolutionary histories, predicting protein structure, and clustering of biological data. Use of scripting languages to perform analysis tasks on biological data. No prior knowledge of biology is assumed.

0101	Robert Patro TuTh 11:00am - 12:15pm	Seats (Total: 50) IRB 2207

CMSC424 **Database Design**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Students are introduced to database systems and motivates the database approach as a mechanism for modeling the real world. An in-depth coverage of the relational model, logical database design, query languages, and other database concepts including query optimization, concurrency control; transaction management, and log based crash recovery. Distributed and Web database architectures are also discussed.

0101	Peter Keleher TuTh 2:00pm - 3:15pm	Seats (Total: 140) CSI 1115

CMSC425 **Game Programming**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351. Restriction: Permission of CMNS-Computer Science department.

An introduction to the principles and practice of computer game programming and design. This includes an introduction to game hardware and systems, the principles of game design, object and terrain modeling, game physics, artificial intelligence for games, networking for games, rendering and animation, and aural rendering. Course topics are reinforced through the design and implementation of a working computer game.

0101	Stevens Miller TuTh 3:30pm - 4:45pm	Seats (Total: 80) IRB 1116

CMSC426 **Computer Vision**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351 and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program; or permission of the instructor. Restriction: Permission of CMNS-Computer Science department.

An introduction to basic concepts and techniques in computervision. This includes low-level operations such as image filtering and edge detection, 3D reconstruction of scenes using stereo and structure from motion, and object detection, recognition and classification.

0101	John Aloimonos TuTh 12:30pm - 1:45pm	Seats (Total: 148) TMH 0301

CMSC430 **Introduction to Compilers**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Topics include lexical analysis, parsing, intermediate representations, program analysis, optimization, and code generation.

0101	David Van Horn MW 3:30pm - 4:45pm	Seats (Total: 90) IRB 0318

0201	Jose Calderon MW 2:00pm - 3:15pm	Seats (Total: 215) BRB 1101

CMSC433 **Programming Language Technologies and Paradigms**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department.

Programming language technologies (e.g., object-oriented programming), their implementations and use in software design and implementation.

0101	Rance Cleaveland TuTh 3:30pm - 4:45pm	Seats (Total: 140) CSI 1115

CMSC434 **Introduction to Human-Computer Interaction**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Assess usability by quantitative and qualitative methods. Conduct task analyses, usability tests, expert reviews, and continuing assessments of working products by interviews, surveys, and logging. Apply design processes and guidelines to develop professional quality user interfaces. Build low-fidelity paper mockups, and a high-fidelity prototype using contemporary tools such as graphic editors and a graphical programming environment (eg: Visual Basic, Java).

0101	Evan Golub TuTh 11:00am - 12:15pm	Seats (Total: 54) IRB 1207
0201	Evan Golub TuTh 12:30pm - 1:45pm	Seats (Total: 54) IRB 1207

CMSC435 **Software Engineering**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (CMSC412, CMSC417, CMSC420, CMSC430, CMSC433, ENEE447); and permission of CMNS-Computer Science department.

State-of-the-art techniques in software design and development. Laboratory experience in applying the techniques covered. Structured design, structured programming, top-down design and development, segmentation and modularization techniques, iterative enhancement, design and code inspection techniques, correctness, and chief-programmer teams. The development of a large software project.

0101	James Purtilo TuTh 12:30pm - 1:45pm	Seats (Total: 46) CSI 1122

CMSC436 **Programming Handheld Systems**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department.

Fundamental principles and concepts that underlie the programming of handheld systems, such as mobile phones, personal digital assistants, and tablet computers. Particular emphasis will be placed on concepts such as limited display size, power, memory and CPU speed; and new input modalities, where handheld systems differ substantially from non-handheld systems, and thus require special programming tools and approaches. Students will apply these concepts and principles in the context of an existing handset programming platform.

Course will be based on the Android platform. (No Android hardware is required -- students can use simulators).

0101	Adam Porter TuTh 9:30am - 10:45am	Seats (Total: 120) CSI 1115
0201	Herve Franceschi MW 2:00pm - 3:15pm	Seats (Total: 145) CSI 1115

CMSC451 **Design and Analysis of Computer Algorithms**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Fundamental techniques for designing efficient computer algorithms, proving their correctness, and analyzing their complexity. General topics include graph algorithms, basic algorithm design paradigms (such as greedy algorithms, divide-and-conquer, and dynamic programming), network flows, NP-completeness, and other selected topics in algorithms.

0101	Clyde Kruskal TuTh 11:00am - 12:15pm	Seats (Total: 48) CSI 1121
0201	Laxman Dhulipala TuTh 3:30pm - 4:45pm	Seats (Total: 100) IRB 0318

CMSC454 **Algorithms for Data Science**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351. Restriction: Permission of CMSC-Computer Science department.

Fundamental methods for processing a high volume of data. Methods include stream processing, locally sensitive hashing, web search methods, page rank computation, network and link analysis, dynamic graph algorithms as well as methods to handle high dimensional data/dimensionality reduction.

0101	Aravind Srinivasan TuTh 9:30am - 10:45am	Seats (Total: 80) CSI 3117

CMSC456 **Cryptography**

(Perm req)

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses); and Permission of CMNS-Mathematics department or permission of instructor . Cross-listed with: MATH456, ENEE456. Credit only granted for: MATH456, CMSC456 or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Jonathan Rosenberg MWF 10:00am - 10:50am	Seats (Total: 70) CSI 3117
0201	Daniel Gottesman TuTh 12:30pm - 1:45pm	Seats (Total: 95) IRB 1116

CMSC457 **Introduction to Quantum Computing**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461, PHYS274); and 1 course with a minimum grade of C- from (CMSC351, PHYS373). Restriction: Permission of CMNS-Computer Science department. Additional information: No previous background in quantum mechanics is required.

An introduction to the concept of a quantum computer, including algorithms that outperform classical computation and methods for performing quantum computation reliably in the presence of noise. As this is a multidisciplinary subject, the course will cover basic concepts in theoretical computer science and physics in addition to introducing core quantum computing topics.

Cross-listed with PHYS457. Credit only granted for CMSC457 or PHYS457. No previous background in quantum mechanics is required.

0101	Xiaodi Wu TuTh 12:30pm - 1:45pm	Seats (Total: 60) CSI 2117

CMSC460 **Computational Methods**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH246. Cross-listed with: AMSC460. Credit only granted for: AMSC460, AMSC466, CMSC460, or CMSC466.

Basic computational methods for interpolation, least squares, approximation, numerical quadrature, numerical solution of polynomial and transcendental equations, systems of linear equations and initial value problems for ordinary differential equations. Emphasis on methods and their computational properties rather than their analytic aspects. Intended primarily for students in the physical and engineering sciences.

0101	Tobias von Petersdorff MWF 11:00am - 11:50am	Seats (Total: 35) MTH B0421
0201	Stefan Doboszczak MWF 12:00pm - 12:50pm	Seats (Total: 35) MTH 0101
0301	Ling Liang TuTh 12:30pm - 1:45pm	Seats (Total: 25) MTH 0103
0401	Ke Chen TuTh 2:00pm - 3:15pm	Seats (Total: 25) MTH 0403

CMSC466 **Introduction to Numerical Analysis I**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH410. Cross-listed with: AMSC466. Credit only granted for: AMSC460, CMSC460, AMSC466, or CMSC466.

Floating point computations, direct methods for linear systems, interpolation, solution of nonlinear equations.

0101	Dionisios Margetis TuTh 11:00am - 12:15pm	Seats (Total: 30) PLS 1111

CMSC470 **Introduction to Natural Language Processing**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC320, CMSC330, and CMSC351; and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Restriction: Permission of CMNS-Computer Science department.

Introduction to fundamental techniques for automatically processing and generating natural language with computers. Machine learning techniques, models, and algorithms that enable computers to deal with the ambiguity and implicit structure of natural language. Application of these techniques in a series of assignments designed to address a core application such as question answering or machine translation.

0101	Rachel Rudinger	Seats (Total: 80)
	TuTh 11:00am - 12:15pm	CSI 3117

CMSC473 **Capstone in Machine Learning**

(Perm req)

Prerequisite: Minimum grade of C- or higher in CMSC421 or CMSC422. Recommended: Background or exposure to machine learning topics is strongly encouraged. Restriction: Permission of instructor and Permission of CMSC - Computer Science department. Credit only granted for: CMSC498P or CMSC473. Formerly: CMSC498P. Additional information: Students will be paired with project advisors from the UMD faculty or alternatively, an industry advisor. Students are encouraged to plan for projects results that can be published at academic conferences or will impact academic research.

Semester-long project course in which each student will identify and carry out a project related to machine learning, with the goal of publishing a research paper or software tool.

0101	Thomas Goldstein	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	CSI 3117

CMSC474 **Introduction to Computational Game Theory**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Credit only granted for: CMSC474, ECON414, GVPT390 or GVPT399A.

Game theory deals with interactions among agents (either human or computerized) whose objectives and preferences may differ from the objectives and preferences of the other agents. It will also provide a comprehensive introduction to game theory, concentrating on its computational aspects.

0101	Mohammad Hajiaghayi	Seats (Total: 80)
	TuTh 8:00am - 9:15am	CSI 2117

CMSC475 **Combinatorics and Graph Theory**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340). And permission of CMNS-Computer Science department; or permission of CMNS-Mathematics department. Cross-listed with MATH475 .

General enumeration methods, difference equations, generating functions. Elements of graph theory, matrix representations of graphs, applications of graph theory to transport networks, matching theory and graphical algorithms.

Credit only granted for MATH475 or CMSC475.

0101	Wiseley Wong	Seats (Total: 35)
	MWF 2:00pm - 2:50pm	PHY 2211

CMSC498A **Selected Topics in Computer Science**

(Perm req)

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Contact department for information to register for this course.

CMSC498E **Selected Topics in Computer Science; Robotics**

(Perm req)

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Prerequisites: Minimum grade of C- or higher in CMSC330 and CMSC351; and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461. Overview on fundamental components of robotic systems, including the sensing and actuation, control and modeling of motion and perception, dynamics and kinematics, motion planning and manipulation of robots.

0101	Dinesh Manocha	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	CSI 2117

CMSC498Z **Selected Topics in Computer Science; Differentiable Programming**

(Perm req)

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Prerequisites: Minimum grade of C- in CMSC330, CMSC351, and CMSC422.

0101	Ming Lin	Seats (Total: 10)
	TuTh 12:30pm - 1:45pm	CSI 2120

CMSC499A **Independent Undergraduate Research**

(Perm req)

Students are provided with an opportunity to participate in a computer science research project under the guidance of a faculty advisor. Format varies. Students and supervising faculty member will agree to a research plan which must be approved by the department. As part of each research plan, students should produce a final paper delineating their contribution to the field.

Contact department for information to register for this course.

CMSC614 **Computer and Network Security**

Recommended: Knowledge of C programming. Restriction: Must be in the Computer Science Master's or Doctoral programs. Credit only granted for: CMSC818O or CMSC614. Formerly: CMSC818O.

Advanced topics in computer and network security, including: anonymity, privacy, memory safety, malware, denial of service attacks, trusted hardware, security design principles, and empirically measuring security "in the wild". This will be a largely paper-driven course (there is no textbook), preparing students for research in (or around) the broad area of security. Students will gain first-hand experience launching attacks in controlled environments. The bulk of the grade will be based on a final, semester-long group project.

0101	Dave Levin	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	CSI 3120

CMSC631 **Program Analysis and Understanding**

Prerequisite: CMSC330; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Techniques for static analysis of source code and modern programming paradigms. Analysis techniques: data flow analysis, program dependence graphs, program slicing, abstract interpretation. The meaning of programs: denotational semantics, partial evaluation. Advanced treatment of abstraction mechanisms: polymorphic types, operation overloading, inheritance, object-oriented programming and ML-like programming languages.

0101	Leonidas Lampropoulos	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	CSI 2120

CMSC657 **Introduction to Quantum Information Processing**

Prerequisite: Familiarity with complex numbers and basic concepts in linear algebra (e.g., eigenvalues, eigenvectors, Hermitian and unitary matrices) is required. Credit only granted for: CMSC657 or CMSC858K. Formerly: CMSC858K. Additional information: Previous background in quantum mechanics or theory of computation is not required.

An introduction to the field of quantum information processing. Students will be prepared to pursue further study in quantum computing, quantum information theory, and related areas.

0101	Andrew Childs	Seats (Total: 65)
	TuTh 11:00am - 12:15pm	IRB 1116

CMSC660 **Scientific Computing I**

Prerequisite: Must have knowledge of Matlab or Python. Cross-listed with: AMSC660. Credit only granted for: AMSC660 or CMSC660.

Fundamental techniques in scientific computation with an introduction to theory and software for each topic. Computer numbers and sources of errors, numerical linear algebra, optimization, and Monte Carlo methods.

0101	Maria Cameron	Seats (Total: 38)
	MWF 12:00pm - 12:50pm	EGR 0135

CMSC673 **Capstone in Machine Learning**

Prerequisite: Minimum grade of C-in CMSC421 or CMSC422. Jointly offered with: CMSC473. Credit only granted for: CMSC673, CMSC798P, CMSC473, or CMSC498P. Formerly: CMSC798P.

Semester-long project course in which each student will identify and carry out a project related to machine learning, with the goal of publishing a research paper or software tool.

0101	Thomas Goldstein	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	CSI 3117

CMSC714 **High Performance Computing Systems**

Prerequisite: CMSC411 and CMSC412; or permission of instructor.

Slected topics in high-performance systems, including contemporary architectures, interconnection topologies, shared memory and message-passing systems, multi-threaded kernels, latency avoidance and hiding techniques, methods for data and workload partitioning performance profiling, debugging.

0101	Alan Sussman	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	CSI 1122

CMSC715 **Wireless and Mobile Systems for the IoT**

Prerequisite: CMSC417; or permission of instructor. Recommended: STAT100, MATH141, MATH240, and CMSC106; or equivalent courses . Credit only granted for: CMSC818W or CMSC715. Formerly: CMSC818W.

Research on the Internet of Things (IoT), from the perspective of wireless networking and mobile sensing. Various techniques, algorithms, and systems that leverage the sensors in smartphones, smartwatches, drones, and IoT devices, to deliver real-world applications

0101	Nirupam Roy	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	IRB 2107

CMSC723 Natural Language Processing

Prerequisite: Minimum grade of C- in CMSC422; and permission of CMNS-Computer Science department. Cross-listed with: INST735, LING723. Credit only granted for: CMSC723, LING723, or INST735. Additional information: CMSC students may only receive PhD Comp. credit for CMSC723 or CMSC823, not both.

Introduce fundamental concepts, techniques, and algorithms for the computational handling of natural language. Statistical and machine learning techniques, models, and algorithms that enable computers to deal with the ambiguity and implicit structure of human language. Approaches that focus on uncovering linguistic structure, such as syntactic or semantic parsing, as well as those that focus on manipulating text in useful ways, such as question answering or machine translation.

0101	Marine Carpuat	Seats (Total: 80)
	MW 2:00pm - 3:15pm	IRB 1116

CMSC724 Database Management Systems

Restriction: Must be in one of the following programs (Computer Science (Master's); Computer Science (Doctoral)) ; or permission of instructor; or permission of CMNS-Computer Science department.

Theoretical and implementation issues in advanced database systems. Topics include distributed databases, parallel databases, database client-server architectures, multimedia access methods, advanced query optimization techniques, data semantics and models, object-oriented databases, and deductive and expert database systems.

0101	Amol Deshpande	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	CSI 1122

CMSC730 Interactive Technologies in Human-Computer Interaction

Restriction: Must be in the Computer Science Master's or Doctoral program; or permission of instructor. Credit only granted for: CMSC838J or CMSC730. Formerly: CMSC838J.

Ubiquitous and mobile computing, wearables, virtual/augmented reality, natural user interfaces, tangible UIs, interactive fabrication.

0101	Huaishu Peng	Seats (Total: 40)
	MW 3:30pm - 4:45pm	IRB 2107

CMSC734 Information Visualization

Prerequisite: CMSC434; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Information visualization defined in relation to graphics, scientific visualization, databases, data mining, and human-computer interaction. Visualizations for dimensional, temporal, hierarchical and network data. Examines design alternatives, algorithms and data structures, coordinated views, and human factors evaluations of efficacy.

0101	Zhicheng Liu	Seats (Total: 45)
	MW 2:00pm - 3:15pm	IRB 2107

CMSC740 Advanced Computer Graphics

Prerequisite: MATH240 and CMSC420; or permission of instructor.

An introduction to advanced concepts in computer graphics. Includes an introduction to realistic rendering based on physical properties of light transport, radiometric concepts, and the rendering equation; Monte Carlo integration techniques to solve the rendering equation such as path tracing and multiple importance sampling; and neural network techniques for efficient sampling and denoising. Further discusses recent advances in 3D modeling and reconstruction, such as neural network-based 3D reconstruction; inverse rendering using neural radiance fields and differentiable rendering; and generative modeling for images, videos, and 3D data.

0101	Matthias Zwicker	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	IRB 2107

CMSC742 Algorithms in Machine Learning: Guarantees and Analyses

Prerequisite: CMSC422 or equivalent; or permission of instructor. Credit only granted for: CMSC828U or CMSC732. Formerly: CMSC828U.

Machine learning studies automatic methods for learning to make accurate predictions, to understand patterns in observed features and to make useful decisions based on past observations. This course introduces theoretical machine learning, including mathematical models of machine learning, and the design and rigorous analysis of learning algorithms. Topics include: (1) Learning theory (traditional and modern), including PAC learning basics, Boosting theory and PAC learning in neural nets. (2) Latent variable graphical models, including spectral methods for learning latent variable models. (3) Reinforcement learning theory, including algorithms, sample complexity and analyses.

0101	Furong Huang	Seats (Total: 45)
	MW 5:00pm - 6:15pm	CSI 2117

CMSC754 Computational Geometry

Prerequisite: CMSC451 and CMSC420; or permission of instructor.

Introduction to algorithms and data structures for computational problems in discrete geometry (for points, lines, and polygons) primarily in two and three dimensions. Topics include triangulations and planar subdivisions, geometric search and intersection, convex hulls, Voronoi diagrams, Delaunay triangulations, line arrangements, visibility, and motion planning.

0101	David Mount	Seats (Total: 50)
	TuTh 9:30am - 10:45am	IRB 2107

CMSC756 **Robotics**

Prerequisite: CMSC420, CMSC106, CMSC466, and MATH240; or equivalent. Restriction: Must be in the Computer Science Master's or Doctoral programs. Credit only granted for: CMSC818N or CMSC756. Formerly: CMSC818N.

Overview on fundamental components of robotic systems, including the sensing and actuation, control and modeling of motion and perception, dynamics and kinematics, motion planning and manipulation of robots.

Cross-listed with ENEE769M. Credit only granted for CMSC756 or ENEE769M.

0101	Dinesh Manocha	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	CSI 2117

CMSC763 **Advanced Linear Numerical Analysis**

Prerequisite: AMSC666 or CMSC666; or permission of instructor. Cross-listed with: AMSC763. Credit only granted for: AMSC600, AMSC763, CMSC760, or CMSC763. Formerly: AMSC600 and CMSC760.

Advanced topics in numerical linear algebra, such as dense eigenvalue problems, sparse elimination, iterative methods, and other topics.

0101	Howard Elman	Seats (Total: 35)
	TuTh 9:30am - 10:45am	CSI 3118

CMSC798 **Master's Non-Thesis Research**

(Perm req)

Contact department for information to register for this course.

CMSC799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

CMSC801 **Department Internal Research Seminar**

Credit only granted for: CMSC798E or CMSC801. Formerly: CMSC798E.

Research overviews from faculty to help introduce departmental research to graduate students.

0101	Ramani Duraiswami F 11:00am - 11:50am	Seats (Total: 60) IRB 1116

CMSC818B **Advanced Topics in Computer Systems; Decision-Making for Robotics**

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

0101	Pratap Tokekar TuTh 11:00am - 12:15pm	Seats (Total: 40) IRB 2107

CMSC818E **Advanced Topics in Computer Systems; Clouds, Consistency, & Consensus**

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

0101	Peter Keleher TuTh 5:00pm - 6:15pm	Seats (Total: 40) CSI 2120

CMSC818F **Advanced Topics in Computer Systems; Cryptography and Hostile Governments**

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

0101	Ian Miers TuTh 3:30pm - 4:45pm	Seats (Total: 40) IRB 2107

CMSC818I **Advanced Topics in Computer Systems; Large Language Models, Security, and Privacy**

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

0101	Yizheng Chen TuTh 3:30pm - 4:45pm	Seats (Total: 40) CSI 1121

CMSC818J **Advanced Topics in Computer Systems; Domain Specific Architecture**

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

Cross-listed with ENEE759c. Credit only granted for CMSC818J or ENEE759C.

0101	Bahar Asgari MW 3:30pm - 4:45pm	Seats (Total: 40) IRB 1207

CMSC818Q **Advanced Topics in Computer Systems; Cloud Networking and Computing**

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

0101	Zaoxing Liu TuTh 2:00pm - 3:15pm	Seats (Total: 40) IRB 1207

CMSC828C **Advanced Topics in Information Processing; Statistical Pattern Recognition**

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	Behtash Babadi MW 11:00am - 12:15pm	Seats (Total: 90) EGR 1202

CMSC828I **Advanced Topics in Information Processing; Advanced Techniques in Visual Learning and Recognition**

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	Abhinav Shrivastava TuTh 11:00am - 12:15pm	Seats (Total: 88) CSI 2117

CMSC829A **Advanced Topics in Bioinformatics and Computational Biology; Algorithmic Evolutionary Biology**

Advanced topics selected by the faculty from the literature of bioinformatics to suit the interest and background of students.

0101	Erin Molloy TuTh 3:30pm - 4:45pm	Seats (Total: 40) IRB 2207

CMSC838B **Advanced Topics in Programming Languages; Differentiable Programming**

Advanced topics selected by faculty from the literature of programming languages to suit the interest and background of students.

0101	Ming Lin TuTh 12:30pm - 1:45pm	Seats (Total: 30) CSI 2120

CMSC848F **Selected Topics in Information Processing; 3D Vision**

Selected topics by the faculty from the literature of information processing to suit the interest and background of students.

0101	Jia-Bin Huang TuTh 12:30pm - 1:45pm	Seats (Total: 50) CSI 1121

CMSC848I **Selected Topics in Information Processing; Trustworthy Machine Learning**

Selected topics by the faculty from the literature of information processing to suit the interest and background of students.

Cross-listed with PHIL688F. Credit only granted for CMSC848I or PHIL688F. Introduces concepts of trustworthiness in machine learning, drawn from computer science, systems engineering, human-computer interaction, psychology, and philosophy. Trustworthiness topics include robustness, uncertainty, fairness, transparency, values alignment, AI safety, etc.

0101	Hal Daume	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	IRB 2207

CMSC848Q **Selected Topics in Information Processing; How and Why Artificial Intelligence Answers Questions**

Selected topics by the faculty from the literature of information processing to suit the interest and background of students.

0101	Jordan Ying	Seats (Total: 40)
	MW 3:30pm - 4:45pm	CSI 2117

CMSC858J **Advanced Topics in Theory of Computing; Network Design Approximation Algorithms**

Advanced topics selected by the faculty from the literature of theory of computing to suit the interest and background of students.

0101	Mohammad Hajiaghayi	Seats (Total: 40)
	TuTh 9:30am - 10:45am	CSI 1121

CMSC858V **Advanced Topics in Theory of Computing; Quantum Control, Metrology, and Error Mitigation for QuantumAlgorithm Deployment**

Advanced topics selected by the faculty from the literature of theory of computing to suit the interest and background of students.

Covers the fundamentals of quantum control and metrology in both digital and analog domains: design and calibration of quantum gates, analog quantum operations, quantum state preparation, and measurement; estimation, characterization, and mitigation of environmental noise; synthesis of logical quantum circuits to physical quantum circuits for agiven quantum hardware architecture. Connects quantum control and metrology tothe deployment of quantum algorithms on near-term quantum computers: superconducting qubits, ion trap qubits, and neutral atom qubits. We will review some of the most successful quantum algorithms deployed on real quantum hardware while focusing on the necessary classical and quantum error mitigation techniques.

0101	Murphy Niu	Seats (Total: 38)
	TuTh 12:30pm - 1:45pm	CSI 3118

CMSC878B **Advanced Topics in Numerical Methods; Fast Multipole Methods: Fundamentals and Applications**

Advanced topics selected by the faculty from the literature of numerical methods to suit the interest and background of students.

Cross-listed with AMSC698D. Credit only granted for CMSC878B or AMSC698D.

0101	Ramani Duraiswami TuTh 2:00pm - 3:15pm	Seats (Total: 40) CSI 1121

CMSC898 **Pre-Candidacy Research**

Advanced topics selected by the faculty from the literature of applications of computer science to suit the interest and background of students.

Contact department for information to register for this course.

CMSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

COMM Communication Fall 2023

COMM107 **Oral Communication: Principles and Practices**

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

0101	Hafiz Ahmad MWF 8:00am - 8:50am	Seats (Total: 19) SKN 1112
0201	Najwa Albaqami MWF 8:00am - 8:50am	Seats (Total: 19) PLS 1176
0301	Anani Kuwornu MWF 8:00am - 8:50am	Seats (Total: 19) PLS 1180
0401	Tania Nachrin MWF 8:00am - 8:50am	Seats (Total: 19) PLS 1184
0501	Stephan Garnier MWF 8:00am - 8:50am	Seats (Total: 19) ASY 3219
0601	Chantay Moye MWF 8:00am - 8:50am	Seats (Total: 19) ARC 1123
1101	Hafiz Ahmad MWF 9:00am - 9:50am	Seats (Total: 19) SKN 1112

1201	Najwa Albaqami MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1176
1301	Anani Kuwornu MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1180
1401	Tania Nachrin MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1184
1501	Stephan Garnier MWF 9:00am - 9:50am	Seats (Total: 19) ASY 3219
2001	Kimberli Munoz MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1164
2301	Katie O'Malley MWF 10:00am - 10:50am	Seats (Total: 19) SKN 1112
2401	Daniel Foster MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1176
2501	Jim Golden MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1180
2601	Mollie Kaufer MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1184
2801	Rachel Bailey MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1146
2901	Kimberli Munoz MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1168
3001	Jeonghyun Kim MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1164
3301	Katie O'Malley MWF 11:00am - 11:50am	Seats (Total: 19) SKN 1112
3401	Daniel Foster MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1176

3501	Jim Golden MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1180
3601	Mollie Kaufer MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1184
3701	Rachel Bailey MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1146
3801	Kimberli Munoz MWF 11:00am - 11:50am	Seats (Total: 19) ATL 0201
3901	Jeonghyun Kim MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1164
4201	Taylor Hourigan MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1172
4301	Mollie Kaufer MWF 1:00pm - 1:50pm	Seats (Total: 19) SKN 1112
4401	Jim Golden MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1176
4501	Rudy Kim MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1180
4601	Rachel Bailey MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1184
4701	Kimberli Munoz MWF 1:00pm - 1:50pm	Seats (Total: 19) ARC 1127
4901	Mollie Kaufer MWF 2:00pm - 2:50pm	Seats (Total: 19) SKN 1112
5001	Jim Golden MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1176
5101	Daniel Foster MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1180

5201	Rachel Bailey MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1184
5501	Vijaya Bohlmann MW 2:00pm - 3:15pm	Seats (Total: 19) PLS 1162
5601	Jiawen Doh MW 2:00pm - 3:15pm	Seats (Total: 19) CCC 1115
5701	Miriam Komuhendo MW 2:00pm - 3:15pm	Seats (Total: 19) PLS 1117
5801	Lamia Zia, Kimberli Munoz MW 2:00pm - 3:15pm	Seats (Total: 19) EDU 2102
5901	Delight Agboada MW 2:00pm - 3:15pm	Seats (Total: 19) PLS 1113
6001	Taylor Hourigan MW 2:00pm - 3:15pm	Seats (Total: 19) PLS 1172
6101	Delight Agboada MW 3:30pm - 4:45pm	Seats (Total: 19) PLS 1113
6201	Miriam Komuhendo MW 3:30pm - 4:45pm	Seats (Total: 19) PLS 1111
6301	Daniel Foster MW 3:30pm - 4:45pm	Seats (Total: 19) PLS 1176
6401	L Gordon MW 3:30pm - 4:45pm	Seats (Total: 19) PLS 1180
6601	Julie Gowin MW 5:00pm - 6:15pm	Seats (Total: 19) PLS 1184
6701	Jiawen Doh MW 5:00pm - 6:15pm	Seats (Total: 19) SKN 1112
6801	Kalin Schultz MW 5:00pm - 6:15pm	Seats (Total: 19) PLS 1176

6901	L Gordon MW 5:00pm - 6:15pm	Seats (Total: 19) PLS 1180
7301	Misa Park TuTh 8:00am - 9:15am	Seats (Total: 19) SKN 1112
7401	Seyeon Park TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1176
7501	Jana Sabri TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1180
7601	Xinyi Song TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1184
7701	Daviana Fraser TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1162
7801	Elizabeth Phipps TuTh 8:00am - 9:15am	Seats (Total: 19) SQH 1111
7901	Cassondra Pope TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1164
8001	Siqiao Ao TuTh 8:00am - 9:15am	Seats (Total: 19) KEY 0124
8101	Misa Park TuTh 9:30am - 10:45am	Seats (Total: 19) SKN 1112
8201	Seyeon Park TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1176
8301	Jana Sabri TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1180
8401	Xinyi Song TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1184
8601	Divine Aboagye TuTh 9:30am - 10:45am	Seats (Total: 19) WDS 1127

8901	Faith Otchere TuTh 11:00am - 12:15pm	Seats (Total: 19) SKN 1112
9001	Sabeen Sheikh TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1176
9101	Ran Ma TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1180
9201	Viktoriia Savchuk TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1184
9301	Cassondra Pope TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1164
9401	Allison Doherty TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1172
9501	Emma Newton TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1162
9601	Faith Otchere TuTh 12:30pm - 1:45pm	Seats (Total: 19) SKN 1112
9701	Sabeen Sheikh TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1176
9801	Ran Ma TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1180
9901	Viktoriia Savchuk TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1184
9902	Janna Soeder TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1164
9903	Thomas McCloskey TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1146
9904	Allison Doherty TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1162

9905	Andrew Lowe Mohammed TuTh 2:00pm - 3:15pm	Seats (Total: 19) SKN 1112
9906	Thomas McCloskey TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1176
9907	Tatenda Mashanda TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1180
9908	Jeremy Grossman TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1184
9910	Allison Doherty TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1146
9911	Hailey Otis TuTh 3:30pm - 4:45pm	Seats (Total: 19) SKN 1112
9912	Soyoung Bae TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1176
9913	Tatenda Mashanda TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1180
9914	Jeremy Grossman TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1184
9915	Thomas McCloskey TuTh 3:30pm - 4:45pm	Seats (Total: 19) HBK 1108
9916	Cassondra Pope TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1158
9917	Allison Doherty TuTh 5:00pm - 6:15pm	Seats (Total: 19) SKN 1112
9918	Soyoung Bae TuTh 5:00pm - 6:15pm	Seats (Total: 19) PLS 1176
9919	Ayodeji Dapherede-Otusanya TuTh 5:00pm - 6:15pm	Seats (Total: 19) PLS 1180

9922	Thomas McCloskey TuTh 11:00am - 12:15pm	Seats (Total: 19) HBK 0108
9923	Jade Olson TuTh 2:00pm - 3:15pm	Seats (Total: 19) ARC 1127
9924	Taylor Kleiner TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1164
9925	Elizabeth Phipps TuTh 12:30pm - 1:45pm	Seats (Total: 19) JMZ 0118
9927	Crystal Stone TuTh 8:00am - 9:15am	Seats (Total: 19) HBK 0123
FC01	Gerry Strumpf MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) ATL 2316
FC02	Sean Rhodes TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) PLS 1172
FC03	Cassondra Pope TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) PLS 1164
FC04	Jim Golden MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) ATL 0201
FC05	Jonathan Leach MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) PLS 1158
FC06	Ari Perez Montes TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) EDU 2101

COMM107B Oral Communication: Principles and Practices

(Perm req)

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

Restricted to students in the Smith Business Leadership Fellows program.

0101	Melissa Lucas TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1172
0201	Christine Schaaf TuTh 12:30pm - 1:45pm	Seats (Total: 19) ARC 1127

COMM107C **Oral Communication: Principles and Practices**

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

This class is designed for current or prospective STEM students.

0101	Cassondra Pope TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1164

COMM130 **Professional Communication and Writing**

Restriction: Must be in the Communication major.

Designed to enhance the clarity and grace of students' writing. Students will acquire knowledge of writing based on principles of style and grammar as well as argument and organizational structure across a diversity of professional writing contexts. Students will also engage in peer review of one another's writing.

0101	Skye De Saint Felix F 11:00am - 11:50am	Seats (Total: 60) ONLINE
0201	Skye De Saint Felix, Shawn Parry-Giles F 12:00pm - 12:50pm	Seats (Total: 60) ONLINE

COMM200 **Critical Thinking and Speaking**

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130, OR THET285.

Theory and practice of persuasive discourse analysis and composition. Research techniques, logical and rhetorical conceptions of argument, and technical principles for persuading in public venues.

Attendance on the first day of classes is mandatory.

0101	Alexandra Grimm TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1158
0201	Divine Aboagye TuTh 8:00am - 9:15am	Seats (Total: 19) EDU 3233
0301	Megu Itoh TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 1313
0401	Alexandra Grimm TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1172

COMM201 **Introduction to Public Relations**

Prerequisite: Must have completed or be concurrently enrolled in COMM130. Restriction: Must be in the Communication major.

Basic concepts and principles of public relations. Roles in organizations and society; history; skills and practices of public relations; theories and models of effective and ethical public relations.

0101	Ganga Dhanesh MW 2:00pm - 3:15pm	Seats (Total: 50) ATL 1113
0201	Heather Epkins TuTh 12:30pm - 1:45pm	Seats (Total: 30) PLS 1117

COMM230 **Argumentation and Debate**

A study of the fundamental principles of reasoning, analysis, and evidence preparation of debate briefs and presentation of standard academic debate.

Attendance on the first day of class is mandatory.

0101	Sean Rhodes TuTh 8:00am - 9:15am	Seats (Total: 24) SYM 0209
0201	Sean Rhodes TuTh 9:30am - 10:45am	Seats (Total: 24) SYM 0209

COMM250 **Introduction to Communication Inquiry**

An introduction to the field of communication. Definitions, models, and contexts of communication; rhetorical theory and rhetorical criticism of discourse.

	0101	Skye De Saint Felix, Trevor Parry-Giles MW 11:00am - 11:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 25) SKN 0200 ONLINE HBK 0123	Discussion
	0103	Trevor Parry-Giles, Skye De Saint Felix MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 25) SKN 0200 ONLINE HBK 0123	Discussion
	0105	Trevor Parry-Giles, Skye De Saint Felix MW 11:00am - 11:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 25) SKN 0200 ONLINE TWS 0223	Discussion
	0106	Skye De Saint Felix, Trevor Parry-Giles MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 25) SKN 0200 ONLINE TWS 1106	Discussion
	0109	Skye De Saint Felix, Trevor Parry-Giles MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 25) SKN 0200 ONLINE BPS 1232	Discussion

COMM269B **Special Topics in Study Abroad II; Oral Communication for Leaders in the Business World**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269C **Special Topics in Study Abroad II; Designing Communication Campaigns**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269M **Special Topics in Study Abroad II; Media Technology**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269P **Special Topics in Study Abroad II; Principles of Film and Media Production**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269R **Special Topics in Study Abroad II; Introduction to Public Relations**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM288 **Communication Internship**

(Perm req)

An individual experience arranged by the student with the instructor. Does not satisfy communication major requirements. 45 hours of supervised internship per credit hour with communication professional. Not a substitute for COMM386.

0101	Julie Gowin Contact instructor or department for details.	Seats (Total: 20)
0601	Leah Waks Contact instructor or department for details.	Seats (Total: 20)

COMM298R **Selected Topics in Communication; Introduction to Public Relations**

Special topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM301 **Rhetorical Theories**

Prerequisite: COMM130, COMM250; and one course from STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one course from COMM107, COMM200, or COMM230; and must have completed or be concurrently enrolled in COMM304. Restriction: Must be in the Communication major. Credit only granted for: COMM301 or COMM401.

Explores the idea of rhetoric, from antiquity to digitality. Rhetoric, as an art of moving bodies, is central to democratic self-governance: only through persuading each other can we develop a shared vision of a just and desirable future. This course tracks the genesis of rhetorical theory in the ancient world, 20th-century struggles against fascist rhetoric, and contemporary extensions of rhetoric in digital media ecologies.

0101	Thomas McCloskey TuTh 9:30am - 10:45am	Seats (Total: 50) SQH 1119

COMM302 **Communication Science Theories**

Prerequisite: COMM130, COMM250; and one of STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one of COMM107, COMM200, or COMM230; and must have completed or be concurrently enrolled in COMM304. Restriction: Must be in the Communication major. Credit only granted for: COMM302 or COMM402.

This class introduces students to the principles of theory construction and offers a critical overview of how communication theories can be applied to solving problems in diverse social contexts, including interpersonal, intercultural, organizational, health, and/or political issues. The ultimate goal of this course is to put students in an intellectual position to understand theories more logically and critically and use them appropriately and effectively in conducting academic research and addressing social issues.

0101	Kang Namkoong MW 3:30pm - 4:45pm	Seats (Total: 50) BPS 1236

COMM303 Media Theory

Prerequisite: COMM130 and COMM250; and one of STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one of COMM107, COMM200, or COMM230; and must have completed or be concurrently enrolled in COMM304. Restriction: Must be in the Communication major.

Provides students with an introduction to media theory from multiple perspectives. We will begin by understanding how the history of mediated communication has been connected to ideology and lived experiences. Through readings, discussions, and activities, you will understand how technical, historical, economic social, and political forces have helped shape media content and the media themselves. You should also become familiar with the debate over how much influence the media have over their audiences, and what types of influences are present. The course will introduce issues relevant to consideration of media and historically underrepresented and marginalized groups, as well as individual and societal functions of the media.

0101	Lamia Zia, Leah Waks MW 2:00pm - 3:15pm	Seats (Total: 70) MCB 1207
ESG1	Lamia Zia TuTh 11:00am - 12:15pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 2203

COMM304 Communication Research Literacy

Prerequisite: Must have completed the Communication gateway requirements (COMM250; and one of STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one of COMM107, COMM200 or COMM230). Must have completed or be concurrently enrolled in COMM130. Restriction: Must be in the Communication program.

Explores the different research traditions in the Communication discipline. This "literacy" course will develop students' ability to locate and fully comprehend Communication research and to understand how that research is conducted, reported, analyzed, and critiqued in Communication literature.

0101	Carina Davies TuTh 2:00pm - 3:15pm	Seats (Total: 120) SHM 2102
ESG1	Maggie Williams MW 9:30am - 10:45am *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 2225

COMM305 Qualitative Communication Research Methods

Prerequisite: COMM130 and COMM304. Restriction: Must be in the Communication major.

Introduces undergraduate students to the methods used in qualitative communication research. Topics covered in class include ethics, field research, reflexivity, data collection, and data analysis. Over the course of the semester, students will develop a research prospectus, engage in field research (interviews and observations), analyze qualitative data, and write/present their research.

0101	Sahar Khamis MW 5:00pm - 6:15pm	Seats (Total: 30) SKN 0104

COMM306 **Rhetorical Methods in Communication**

Prerequisite: COMM130 and COMM304. Restriction: Must be in the Communication major.

Equips students with skills for conducting research using rhetorical-critical methods. Such methods are crucial for scholars studying all kinds of public rhetoric: speeches, popular culture, photojournalism, digital media, public monuments, laws, and more. They are also instrumental for citizens engaging with elected officials, other citizens, and democratic institutions, as well as professionals who seek to create and understand persuasive discourse. This course will equip you with critical interpretive skills important to your work as a scholar, citizen, and professional.

0101	Fielding Montgomery TuTh 12:30pm - 1:45pm	Seats (Total: 25) ATL 1114

COMM307 **Quantitative Methods in Communication**

Prerequisite: COMM130 and COMM304. Restriction: Must be in the Communication major. Credit only granted for: COMM400 or COMM307. Formerly: COMM400.

Designed to introduce students to the basics of quantitative communication research methods. As such, it covers the basic principles of scientific inquiry, the process for generating research questions and hypotheses, the concept of variables, sampling methods, research designs, basics of data analyses, as well as ethics in scientific research. This course prepares students to become informed consumers of quantitative communication research.

0101	Yan Qu TuTh 11:00am - 12:15pm	Seats (Total: 30) BPS 1228
0201	Yan Qu TuTh 12:30pm - 1:45pm	Seats (Total: 30) HBK 1108

COMM311 **Peer Consulting in Oral Communication**

(Perm req)

Restriction: Permission of Communication department. Credit only granted for: COMM398C or COMM311. Formerly: COMM398C. Additional information: There will be a pre-enrollment interview conducted before students are given permission to enroll in the course.

Provides training in the principles and practice of peer consulting in the context of the Oral Communication Center in the Department of Communication. Students will apply and integrate the knowledge and skills acquired in their fundamental studies oral communications course with new training to help their peers become outstanding listeners and speakers. Students will also engage in a group research project designed to extend knowledge in peer consulting best practices.

0101	Raphael Mazzone MW 12:00pm - 12:50pm Contact instructor or department for details.	Seats (Total: 20) SKN 2127

COMM324 **Communication and Gender**

Explores how communication shapes constructions of gender, sex, sexuality and other identity markers. Topics include issues of oppression, identity, and power and social, political, and economic situations and examines how these issues impact our daily lives.

0101	Kalin Schultz MW 3:30pm - 4:45pm	Seats (Total: 25) HBK 0125
0201	Taylor Hourigan MW 5:00pm - 6:15pm	Seats (Total: 25) SQH 1111
0301	Emma Newton TuTh 8:00am - 9:15am	Seats (Total: 25) HBK 0105
0401	Emma Newton TuTh 9:30am - 10:45am	Seats (Total: 25) HBK 0105
ESG1	Janna Soeder MW 11:00am - 12:15pm *Restricted to students in the Biological Sciences Program at USG.*	Seats (Total: 30) BLD4 3321

COMM330 **Argumentation and Public Policy**

Contemporary theories of argumentation with special emphasis on methods of formulating and critiquing public policy argument.

0101	Carolyn Robbins MW 2:00pm - 3:15pm	Seats (Total: 25) HBK 0123
0201	Carolyn Robbins MW 3:30pm - 4:45pm	Seats (Total: 25) CHM 1224

ESG1	Janna Soeder MW 12:30pm - 1:45pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 3225

COMM331 **News Writing and Reporting for Public Relations**

(Perm req)

Prerequisite: COMM130 and COMM201. Restriction: Must be in Communication program; and (sophomore standing; or junior standing). Credit only granted for: JOUR201, COMM231, or COMM331. Formerly: COMM231.

Writing and researching news and information media for public relations; laboratory in news-gathering tools and writing techniques for public relations.

0101	Vijaya Bohlmann MW 11:00am - 12:50pm	Seats (Total: 18) PLS 1168
0201	Vijaya Bohlmann MW 9:00am - 10:50am	Seats (Total: 18) PLS 1111

COMM351 **Public Relations Techniques**

(Perm req)

Prerequisite: COMM331. Restriction: Must be in Communication program.

The techniques of public relations, including news releases, publications and printed materials, audio-visual techniques, speeches and special events. Application of these techniques in laboratory and field projects.

0101	Steven Drake MW 1:00pm - 2:15pm	Seats (Total: 18) PLS 1158
0201	Steven Drake MW 2:30pm - 3:45pm	Seats (Total: 18) SPH 0303

COMM353 **New Media Writing for Public Relations**

(Perm req)

Prerequisite: Minimum grade of C- in COMM351. Restriction: Must be in Communication program. Credit only granted for: COMM352 or COMM353. Formerly: COMM352.

Students learn the uses and influence of new media on public relations practice and expand their ability to write using new and traditional media platforms and tools

0101	Olivia Truban TuTh 2:00pm - 3:15pm	Seats (Total: 18) PHY 4222
0201	Olivia Truban TuTh 12:30pm - 1:45pm	Seats (Total: 18) HBK 0108

COMM360 **The Rhetoric of Black America**

An historical-critical survey of the rhetoric of Black Americans from the colonial period to the present.

0101	Daviana Fraser TuTh 9:30am - 10:45am	Seats (Total: 25) HBK 1108
0201	Alisa Hardy TuTh 12:30pm - 1:45pm	Seats (Total: 25) TWS 0201

COMM370 **Mediated Communication**

Prerequisite: COMM250. Restriction: Junior standing or higher.

Analysis and critique of structure, performance, content, effects, and future of mediated communication.

0101	Lamia Zia MW 3:30pm - 4:45pm	Seats (Total: 30) TWS 0234
0201	Ayodeji Dapherede-Otusanya TuTh 3:30pm - 4:45pm	Seats (Total: 30) HBK 1112
ESG1	Ayodeji Dapherede-Otusanya MW 12:30pm - 1:45pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 3203

COMM370H **Mediated Communication**

(Perm req)

Prerequisite: COMM250. Restriction: Junior standing or higher.

Analysis and critique of structure, performance, content, effects, and future of mediated communication.

0101	Briana Barner MW 3:30pm - 4:45pm	Seats (Total: 15) TWS 1320

COMM371 **Communication and Digital Media**

Restriction: Must be in Communication program.

A basic introduction to communication in the digital age. Through class lectures, assignments and projects, students will learn to effectively use new media for the purpose of strategic message creation and management used in the field of communication. Students will apply the basics of visual layout skills and the principles of visual design to create messages using words and images.

ESG1	Ilse Genovese	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	BLD3 3212
	Restricted to students in the Communication Program at USG.	

COMM372 **Communication, Meaning, and Digital Media**

Restriction: Must be in Communication program.

An exploration of visual communication and meaning creation. A theoretical and practical application of communication concepts and techniques in the production of visual content.

Formerly COMM498J. Credit granted for COMM498J or COMM372.

ESG1	Adam Nixon	Seats (Total: 25)
	M 5:00pm - 7:30pm	BLD3 3212
	Restricted to students in the Communication Program at USG.	

COMM373 **Communication and Digital Visual Narrative**

Restriction: Must be in Communication program.

Examination of the traditional style of visual communication, its practices and theoretical underpinnings juxtaposed against contemporary digital media aesthetics and techniques. Utilizing a variety of communication skills and new media tools, students will plan, write, shoot, edit, and upload digital visual narratives.

Formerly COMM498K. Credit granted for COMM498K or COMM373.

ESG1	Adam Nixon	Seats (Total: 25)
	Tu 5:00pm - 7:30pm	BLD3 3212
	Restricted to students in the Communication Program at USG.	

COMM375 **Documentary Theory and Practice**

Restriction: Must be in Communication program.

A historical and theoretical introduction to documentary films and videos. Students will explore the power of documentaries to address socially significant issues.

ESG1	Adam Nixon	Seats (Total: 25)
	W 5:00pm - 7:30pm	BLD3 3212
	Restricted to students in the Communication Program at USG.	

COMM382 **Essentials of Intercultural Communication**

Credit only granted for: COMM382 or COMM482.

Introduction of major theories and concepts of intercultural communication; examination of processes that make up cultural differences; and use of intercultural communication competence skills.

0101	Umisha Kc TuTh 12:30pm - 1:45pm	Seats (Total: 25) TWS 0205
0201	Ari Perez Montes TuTh 3:30pm - 4:45pm	Seats (Total: 25) CHE 2145
0301	Ari Perez Montes TuTh 5:00pm - 6:15pm	Seats (Total: 25) JMZ 1122
ESG1	Ayodeji Dapherede-Otusanya MW 2:30pm - 3:45pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 2225

COMM385 **Influence**

Credit only granted for: COMM385 or COMM498I (Spring 2014). Formerly: COMM498I (Spring 2014).

Explores contemporary theories of influence and their implications for communication practice. Topics include power and influence, logical theory, rhetorical theory, persuasion theory, framing theory, social influence theory, and propagation of influence in mediated social networks.

ESG1	Carina Davies Class time/details on ELMs *Restricted to students at Shady Grove.*	Seats (Total: 30) ONLINE

COMM386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-Communication department. Restriction: Junior standing or higher; and must be in Communication program.

Supervised internship experience with communication professionals. Relation of academic training to professional experience.

0101	Julie Gowin Contact instructor or department for details.	Seats (Total: 75)

ESG1	Raimonda Nuredini	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Communication Program at USG.	

COMM388 **Communication Practicum**

(Perm req)

Supervised professional-level practice in communication.

Contact department for information to register for this course.

COMM398 **Selected Topics in Communication**

(Perm req)

Topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM398E **Selected Topics in Communication; Health Communication**

Topical study of contemporary issues in communication.

0101	Xiaoli Nan	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	HBK 1108

COMM398F **Selected Topics in Communication; Web Graphics, Coding, and Site Design**

Topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM398N **Selected Topics in Communication; Communication and Digital Imaging**

Topical study of contemporary issues in communication.

ESG1	Ilse Genovese	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	BLD3 3212
	Restricted to students in the Communication Program at USG.	

COMM398O **Selected Topics in Communication; Environmental Communication**

Topical study of contemporary issues in communication.

Environmental Communication explores the theory and practice of talking about the environment. Students will explore how environmental discourses construct and challenge our identities and relationships with other beings as part of multiple complex and interconnected systems. Topics covered include historical and contemporary rhetorics of environmentalism, scholarly thought on discourses of nature and culture, and efforts to relocate the "center" of environmental communication by privileging the perspectives and strategies of marginalized knowledges, practices, and voices.

0101	Jade Olson	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	HBK 0105

COMM398Q **Selected Topics in Communication; Social Media Analytics**

Topical study of contemporary issues in communication.

ESG1	Adam Nixon	Seats (Total: 30)
	Th 5:00pm - 7:30pm	BLD3 3226
	Restricted to students in the Communication Program at USG.	

COMM398T **Selected Topics in Communication; Digital Culture and Civic Life**

Topical study of contemporary issues in communication.

Restricted to COMM majors only. This course asks: what does it mean to participate in civic life in a digital age? Students will explore their role as participants in digital culture by critically engaging contemporary case studies alongside learning digital production skills. Topics like social media activism, algorithmic bias, and conspiracy theories will be paired with digital projects like video essays and Twitter bots.

0101	Elizabeth Phipps	Seats (Total: 25)
	TuTh 9:30am - 10:45am	SQH 1111

COMM398U **Selected Topics in Communication; Peer Mentoring in Oral Communication**

(Perm req)

Topical study of contemporary issues in communication.

Provides training in peer mentoring specifically focusing on communicati ve best practices, the establishment of shared goals, and effectively managing the mentor/mentee relationships.

0101	Raphael Mazzone	Seats (Total: 12)
	MW 12:00pm - 12:50pm Contact instructor or department for details.	SKN 1112

COMM398Z **Selected Topics in Communication; Media Ethics and Cultural Citizenship**

Topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM399 **Honors Thesis**

(Perm req)

0601	Leah Waks	Seats (Total: 10)
	Contact instructor or department for details.	

1001	Andrew Wolvin Contact instructor or department for details.	Seats (Total: 5)
3701	Sahar Khamis Contact instructor or department for details.	Seats (Total: 5)
3801	Dale Hample Contact instructor or department for details.	Seats (Total: 10)
4001	Xiaoli Nan Contact instructor or department for details.	Seats (Total: 10)
4801	Nick Joyce Contact instructor or department for details.	Seats (Total: 5)
4901	Lindsey Anderson Contact instructor or department for details.	Seats (Total: 5)
5101	Damien Pfister Contact instructor or department for details.	Seats (Total: 10)
5301	Kang Namkoong Contact instructor or department for details.	Seats (Total: 5)
5501	Catherine Steele Contact instructor or department for details.	Seats (Total: 5)

COMM424 **Communication in Complex Organizations**

Structure and function of communication within organizations: organizational climate and culture, information flow, networks and role relationships.

0101	Daniel Foster MWF 1:00pm - 1:50pm	Seats (Total: 30) PLS 1113

COMM425 **Negotiation and Conflict Management**

Role of communication in shaping negotiation and conflict processes and outcomes.

Restricted to COMM majors only.

0101	Lauren Edelstein TuTh 11:00am - 12:15pm	Seats (Total: 30) HJP 2217

COMM426 **Conflict Management**

Recommended: COMM425 and COMM250.

Role of communication in managing conflict processes.

This course is restricted to COMM majors only.

0101	Lauren Edelstein TuTh 9:30am - 10:45am	Seats (Total: 30) HJP 2217

COMM427 Crisis Communication

Explores theories and research related to communication before, during, and after a crisis. Students examine the fundamentals of organizational communication, crisis management, and strategic and crisis communication planning before examining case studies of a number of real-life crises: organizational crises, natural disasters, accidents, terrorism incidents, health crises, and major crises of credibility.

ESG1	Dionne Clemons TuTh 11:00am - 12:15pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 4226

COMM435 Theories of Interpersonal Communication

Major theoretical approaches and research trends in the study of interpersonal communication.

ESG1	Maggie Williams MW 11:00am - 12:15pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 2225

COMM449B Special Topics in Digital Communication; Communication and Social Media

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

0101	Lamia Zia MW 5:00pm - 6:15pm	Seats (Total: 30) TWS 0234
ESG1	Lamia Zia TuTh 12:30pm - 1:45pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 2203

COMM449E Special Topics in Digital Communication; Communication, Sport, and Media

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

Restrictions: Restricted to COMM majors only. Description: An exploration of cultural and mediated influences on the intersection of sport, society, and communication. The course covers topics such as how cultural values become embedded within sports and sports media, and how factors such as race, gender, national identity, or global diplomacy impact communication about sports.

0101	Maggie Williams TuTh 12:30pm - 1:45pm	Seats (Total: 30) SKN 1115
0201	Maggie Williams TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 1105

COMM449F **Special Topics in Digital Communication; Media Campaign Message Design**

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

Restriction: Restricted to COMM majors only. In this project-based course, students will learn about media campaigns by topics and design campaigns using different media platforms.

0101	Soyoung Bae TuTh 2:00pm - 3:15pm	Seats (Total: 30) HBK 1108

COMM449L **Special Topics in Digital Communication; Media Literacy**

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

Restriction: Restricted to COMM majors only.

0101	Heather Epkins TuTh 11:00am - 12:15pm	Seats (Total: 30) BPS 1232

COMM449P **Special Topics in Digital Communication; Black Podcasts**

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

Restrictions: Restricted to COMM majors only. This course examines the cultural production and significance of Black podcasts. Students will examine how podcasts can help us make sense of shifting meanings of race, gender, and sexuality.

0101	Briana Barner MW 2:00pm - 3:15pm	Seats (Total: 30) KNI 1103

COMM449Y **Special Topics in Digital Communication; Digital Video Production**

(Perm req)

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

ESG1	Lauren Vance, Leah Waks	Seats (Total: 15)
	Th 3:00pm - 6:00pm	BLG3 2212

COMM456 **Freedom of Speech & the First Amendment**

Credit only granted for: COMM498Y or COMM456. Formerly: COMM498Y.

Examines the U.S. Supreme Court's rulings on freedom of speech cases as grounded in the First Amendment to the U.S. Constitution. It also considers the political and ideological role of "freedom of speech" as a rhetoric organizing and ordering U.S. political culture.

0101	Jade Olson	Seats (Total: 30)
	TuTh 9:30am - 10:45am	HBK 1112

COMM459A **Special Topics in Science Communication; Science Communication**

This seminar course is designed to help students learn a variety of topics of science communication.

Restricted to COMM majors only. Formerly COMM398A. Credit only granted for COMM398A or COMM459A. This focuses on the theory and practice of science communication to public audiences. This course is mainly designed to help students learn how to communicate better about science with a variety of audiences, including the public, advocacy groups, and the media. For this, we will review who does science communication, how, why, and with what impacts.

0101	Jiyoun Kim	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	HBK 1112

COMM462 **Visual Communication**

Credit only granted for: COMM462 or COMM498V. Formerly: COMM498V.

The study of visual communication should change the way one sees the world. Students will observe, analyze, and critique visual images. The ascendance of images in our contemporary world will be demonstrated, methods for critically comprehending how images do persuasive work will be identified, and students will develop a vocabulary for critiquing images, and assist students in creating compelling images.

0101	Janna Soeder	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	HBK 0123

COMM475 **Persuasion**

Bases of persuasion, with emphasis on recent experimental developments in persuasion.

This course is restricted to COMM majors only.

0101	Soyoung Bae TuTh 12:30pm - 1:45pm	Seats (Total: 30) HBK 0105

COMM476 **Language, Communication, and Action**

Restriction: Must be in the Communication major.

Communication as symbolic action through the study of communication ethics. Emerging ethical principles and decision-making in public discourse, interpersonal communication, organizational communication, public relations, health communication, and crisis communication.

Retricted to COMM majors only.

0101	Susan Simon TuTh 2:00pm - 3:15pm	Seats (Total: 30) HBK 1112
0201	Dionne Clemons TuTh 3:30pm - 4:45pm	Seats (Total: 30) HBK 0123

COMM483 **Senior Seminar in Public Relations**

(Perm req)

Prerequisite: COMM351; and 1 course from (COMM305, COMM306, COMM307, or COMM400). Additional information: Students who enrolled after Fall 2020 should not take COMM400 as a prerequisite.

Integration of theory, techniques and research methods into the planning and execution of public relations campaigns for specific organizations. Analysis of research on the case studies of public relations.

0101	Susan Simon TuTh 9:30am - 10:45am	Seats (Total: 20) LEF 1171

COMM488I **Communication Portfolio Project; Strategic Interviewing for the Career You Want**

Preparation of the professional communication portfolio.

This course introduces students to advanced techniques in interviewing for job opportunities and career progression. This online course focuses on the dynamics of the interview process, the communication theories and best practices behind influence and persuasion, and the communication aptitudes and skills that distinguish top candidates.

0101	Courtnee Connon Class time/details on ELMs	Seats (Total: 50) ONLINE

COMM489 **Topical Research**

(Perm req)

Individualized research projects conducted with a faculty sponsor.

Contact department for information to register for this course.

COMM498I **Seminar; New Media & Health Communication**

Present-day communication research.

0101	Kang Namkoong MW 2:00pm - 3:15pm	Seats (Total: 30) ESJ B0322

COMM498J **Seminar; Strategic Communication**

Present-day communication research.

This course presents a system of strategies that underlie communication. It is a practice-based framework with definitions, conditions, risks and rewards that inform the moves and motives of influence professionals. Through a series of interactive lectures, landmark writings, group exercises and classroom simulations, students will learn to decode, defend, apply and ethically manage the ever-present plays of dynamic, media-driven markets.

0101	Nana Kwame Osei Fordjour MW 3:30pm - 4:45pm	Seats (Total: 30) TWS 0221
ESG1	Dionne Clemons TuTh 9:30am - 10:45am *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 4226

COMM631 **Seminar in Public Relations Publics**

Credit only granted for: COMM631 or JOUR631. Formerly: JOUR631.

Analysis of public relations programs aimed at organizational publics. Media, issue-related, community, employee, governmental, consumer, financial, and student/educator publics. Theories of the nature of publics, communication behavior of publics, and effects of public relations programs aimed at different publics.

0101	Sun Young Lee W 3:30pm - 6:30pm	Seats (Total: 15) SKN 3117

COMM686 **Teaching Communication**

Formerly: SPCH686.

Principles of effective teaching--content and process--in the college communication classroom.

0101	Melissa Lucas W 12:00pm - 1:00pm Class time/details on ELMs	Seats (Total: 30) SKN 3117 ONLINE

Alternating face-to-face/online class meeting. Please see instructor fo details.

COMM688 **Communication Field Experience**

(Perm req)

Applications of communication principles and research in professional communication settings.

Contact department for information to register for this course.

COMM698 **Special Problems in Communication**

(Perm req)

Contact department for information to register for this course.

COMM698A **Special Problems in Communication; Science Communication**

0101	Jiyoun Kim Tu 3:30pm - 6:30pm	Seats (Total: 15) SKN 2127

COMM698M **Special Problems in Communication; Colloquium in Digital Studies**

Cross-listed with COMM698M. Credit only granted for MITH729 or COMM698M.

0101	Catherine Steele F 3:00pm - 5:00pm	Seats (Total: 25) SKN 3115

COMM700 **Introduction to Graduate Study in Communication**

Restriction: Must be in Communication (Doctoral) program. Formerly: SPCH700.

Basic skills in communication research.

0101	Kristjana Maddux Th 3:30pm - 6:30pm	Seats (Total: 30) SKN 2127

COMM712 **Advanced Historical/Critical Methods in Communication Research**

Restriction: Permission of instructor.

Critical assessment of qualitative approaches to communication. Introduction to significant schools of historical and critical research. Advanced techniques for inquiry and manuscript preparation. Students must have dissertation research project requiring historical or critical method.

0101	Catherine Steele M 3:30pm - 6:30pm	Seats (Total: 15) SKN 2127

COMM714 **Introduction to Qualitative Methods in Communication Research**

Restriction: Permission of instructor.

Methods for field research in communication including interiewing, ethnographic and participant intervention, focus groups, and content analysis. Formulation of significant research questions, systematic collection of field data, formulating substantial claims from the research, organizing and writing research from disciplinary outlets.

0101	Sahar Khamis	Seats (Total: 15)
	M 6:30pm - 9:30pm	SKN 2127

COMM748 **The Rhetoric of the Presidency**

The study of the historical and contemporary rhetoric of the presidency in appropriate historical and political contexts. Scholarship related to public address studies and theories of the presidency will be featured.

0101	Shawn Parry-Giles	Seats (Total: 15)
	W 3:30pm - 6:30pm	SKN 2127

COMM798 **Independent Study**

(Perm req)

An individual course designed for intensive study or research of problems in communication.

Contact department for information to register for this course.

COMM799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

COMM888 **Doctoral Practicum in Communication**

(Perm req)

Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

COMM889 **Doctoral Tutorial in Communication**

(Perm req)

Individual research in communication.

Contact department for information to register for this course.

COMM898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

COMM899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

CPBE College Park Scholars-Business, Society, and Economy — Fall 2023

CPBE100 **College Park Scholars: Business, Society & the Economy First-Year Colloquium**

Restriction: Students must be matriculated into the College Park Scholars Business, Society & the Economy (CPBE) program.

Introductory colloquium: Examination of issues related to business, society and the economy.

0101	Oliver Schlake, Claudia Donnelly	Seats (Total: 50)	
	M 5:00pm - 5:50pm	ESJ 1202	
	M 6:00pm - 6:50pm	ESJ 1202	Lab
0201	Oliver Schlake, Claudia Donnelly	Seats (Total: 50)	
	M 5:00pm - 5:50pm	ESJ 1202	
	M 6:00pm - 6:50pm	ESJ 1202	Lab

CPBE225 **Enterprise Communications**

Prerequisite: CPBE100. Restriction: Must be enrolled in College Park Scholars' Business, Society and the Economy (CPBE) program. Formerly: CPSP220.

Examines basic interpersonal communication processes within written and oral channels, with practical applications for the business environment.

0101	Ira Koretsky	Seats (Total: 38)	
	MW 11:00am - 12:15pm	HBK 0105	
	W 5:00pm - 6:50pm	TWS 0320	Lab
0102	Ira Koretsky	Seats (Total: 38)	
	MW 9:30am - 10:45am	JMZ 2206	
	W 5:00pm - 6:50pm	TWS 0320	Lab

CPET College Park Scholars-Environment, Technology & Economy — Fall 2023

CPET100 **College Park Scholars: Environment, Technology & Economy First-Year Colloquium I**

Restriction: Students must be enrolled in the College Park Scholars Environment, Technology & Economy (CPET) program.

Introductory colloquium: Examination of issues related to the convergence of the environment, technology and the economy.

0101	Tim Knight, Dani Moore Th 4:10pm - 5:30pm	Seats (Total: 96) CCC 1205

CPET200 **College Park Scholars: Environment, Technology & Economy Second-Year Colloquium**

Prerequisite: CPET101. Restriction: Students must be enrolled in the College Park Scholars Environment, Technology & Economy (CPET) program.

Advanced colloquium: Continued examination of issues related to sustainable development.

0101	Dani Moore, Tim Knight W 4:10pm - 5:30pm	Seats (Total: 96) CCC 1100

CPGH College Park Scholars-Global Public Health Fall 2023

CPGH100 **College Park Scholars: Global Public Health First-Year Colloquium I**

Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Introductory colloquium: Examination of factors that determine the health status of populations around the world.

0101	Becky Shasha Bennett, Janay Johnson M 5:00pm - 6:15pm	Seats (Total: 96) CCC 1205

CPGH200 **College Park Scholars: Global Public Health Second-Year Colloquium**

Prerequisite: CPGH101. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Building on knowledge and skills gained from the first-year colloquia, students will develop public health interventions that address a public health issue of a particular community.

0101	Janay Johnson, Becky Shasha Bennett W 2:00pm - 3:15pm	Seats (Total: 95) CCC 1100

CPJT College Park Scholars-Justice and Legal Thought Fall 2023

CPJT100 **College Park Scholars: Justice & Legal Thought: First-Year Colloquium**

Restriction: Students must be enrolled in the College Park Scholars Justice & Legal Thought (CPJT) program.

Students will gain an experiential understanding of law and justice by investigating concepts and frameworks of justice and apply them to real-world experience.

0101	Justine DeCamillis	Seats (Total: 90)
	W 5:00pm - 6:15pm	CCC 1205

CPJT200 **Justice and legal Thought Second Year Colloquium**

Restriction: Students must be enrolled in the College Park Scholars Justice and Legal Thought (CPJT) program. Additional information: When combined with the first year CPJT colloquia, students will learn how to research issues discussed and debated throughout year one.

Advanced colloquium for second year students related to research skill development

0101	Justine DeCamillis	Seats (Total: 90)
	Tu 5:00pm - 6:00pm	CCC 1205

CPMS College Park Scholars-Media, Self and Society Fall 2023

CPMS100 **College Park Scholars: Media, Self & Society First-Year Colloquium I**

Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Introductory colloquium: Examination of issues related to the media.

0101	Alison Burns	Seats (Total: 90)
	Th 3:30pm - 4:45pm	CCC 1100

CPMS225 **Analyzing Media Practice through Theory**

Prerequisite: CPMS100. Restriction: Must be in the Scholars Media, Self & Society Program. Formerly: CPSP222.

Media analysis investigating patterns of ownership, the working of media organizations, patterns of coverage and the nature of audiences.

0101	Alison Burns	Seats (Total: 90)
	TuTh 12:30pm - 1:45pm	TWS 0310

CPMS230 **College Park Scholars: Media, Self & Society - Internship Practicum**

Prerequisite: CPMS101. Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Supervised internship project in an area related to media, self and society.

0101	Alison Burns	Seats (Total: 30)
	Contact instructor or department for details.	

CPPL College Park Scholars-Public Leadership Fall 2023

CPPL100 **College Park Scholars: Public Leadership First-Year Colloquium I**

Restriction: Students must be enrolled in the College Park Scholars Public Leadership (CPPL) program.

Introductory colloquium: Examination of issues related to public leadership.

0101	Kelly Brower, Susannah Washburn W 3:00pm - 4:15pm	Seats (Total: 45) CCC 1111
0201	Kelly Brower, Susannah Washburn W 4:30pm - 5:45pm	Seats (Total: 45) CCC 1111

CPPL200 **College Park Scholars: Public Leadership - Applied Leadership Capstone I**

Prerequisite: CPPL101. Restriction: Students must be enrolled in the College Park Scholars Public Leadership (CPPL) program.

Planning and initiation of team, community-based-learning projects.

Alternating face-to-face/online meeting. See instructor for details.

0101	Kelly Brower Th 4:00pm - 5:15pm	Seats (Total: 75) ESJ 1215
0102	Kelly Brower Contact instructor or department for details.	Seats (Total: 5)

CPSA College Park Scholars-Arts Fall 2023

CPSA100 **College Park Scholars: Arts First-Year Colloquium I**

Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program.

Introductory colloquium: Aesthetic, intellectual and personal examination of the arts.

0101	Heather-Erin Bremenstuhl, Harold Burgess, Gabrielle Robinson-Tillenburg M 5:30pm - 6:45pm	Seats (Total: 95) CCC 1100

CPSA149 **College Park Scholars: Arts Service-Learning Outreach**

Service-Learning outreach to Prince George's County schools and non-profit agencies.

0101	Harold Burgess Th 5:00pm - 7:00pm	Seats (Total: 10) Location: TBA

CPSA200 **College Park Scholars: Arts Second-Year Colloquium I**

Prerequisite: CPSA101. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program. Additional information: When paired with successful completion of CPSA 240, 250 or 260, students will earn General Education Scholarship-in-Practice credit.

Advanced colloquium I: Examination of the arts in society; and preparation for "Scholarship-in-Practice" project.

0101	Heather-Erin Bremenstuhl, Harold Burgess, Gabrielle Robinson-Tillenburg Tu 5:30pm - 6:45pm	Seats (Total: 75) CCC 1100

CPSF College Park Scholars-Life Sciences Fall 2023

CPSF100 **College Park Scholars: Life Sciences First-Year Colloquium I**

Restriction: Students must be enrolled in the College Park Scholars Life Sciences (CPSF) program.

Introductory colloquium: Examination of issues related to the life sciences.

0101	Erin Thomson, Beth Parent W 3:30pm - 5:00pm	Seats (Total: 96) ESJ 1202

CPSF200 **College Park Scholars: Life Sciences Second-Year Colloquium**

Prerequisite: CPSF101. Restriction: Must be in the College Park Scholars Life Sciences program. Credit only granted for: CPSF200 or CPSP218L. Formerly: CPSP218L.

This course is the final of a three-semester sequence within the College Park Scholars- Life Sciences Program. In the first semester, our content focused on community; we built community as a program of unique individuals to create a common identity and discussed the ways in which the science community exists. The second semester allowed us to explore the life sciences through our lenses of curiosity; we asked big questions and moved toward big answers. This semester is focused on engagement. We will take time to be fully present in the life sciences community and learn why it is important to gain practical knowledge and experiences to further the goals and aims of science.

0101	Erin Thomson, Beth Parent W 3:30pm - 5:00pm	Seats (Total: 90) Location: TBA

CPSG College Park Scholars-Science and Global Change Fall 2023

CPSG100 **College Park Scholars: Science & Global Change First-Year Colloquium I**

Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Introductory colloquium: Examination of issues related to science and global change.

0101	Thomas Holtz, John Merck	Seats (Total: 92)
	Tu 3:30pm - 4:50pm	CCC 1205

CPSG200 **College Park Scholars: Science & Global Change Second-Year Colloquium**

Prerequisite: CPSG101. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Advanced colloquium: Continued examination of issues related to science and global change.

0101	Thomas Holtz, John Merck	Seats (Total: 90)
	M 3:30pm - 4:50pm	CCC 1205

CPSN College Park Scholars-International Studies Fall 2023

CPSN100 **College Park Scholars: International Studies First-Year Colloquium I**

Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Introductory colloquium: Examination of issues related to international studies.

0101	Karim Makkawy	Seats (Total: 75)
	W 3:00pm - 4:15pm	CCC 1205

CPSN230 **College Park Scholars: International Studies - Internship Practicum**

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised internship project in an area related to international studies.

0101	Sarah Kilmer	Seats (Total: 20)
	Contact instructor or department for details.	

CPSN240 **College Park Scholars: International Studies - Service-Learning Practicum**

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised Service-Learning project in an area related to international studies.

0101	Sarah Kilmer	Seats (Total: 10)
	Contact instructor or department for details.	

CPSN250 **College Park Scholars: International Studies - Research Practicum**

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised research in an area related to international studies.

0101	Sarah Kilmer	Seats (Total: 2)
	Contact instructor or department for details.	

CPSP College Park Scholars Program Fall 2023

CPSP218N **College Park Scholars Second-Year Colloquium I**

Colloquium for specific College Park Scholars Program.

0101	Karim Makkawy	Seats (Total: 70)
	Tu 3:30pm - 4:45pm	CCC 1100

CPSP239 **Practicum: Internship**

Supervised internship in interest area related to the theme of the students' College Park Scholars program.

Contact department for information to register for this course.

CPSP239A **Practicum: Internship**

Supervised internship in interest area related to the theme of the students' College Park Scholars program.

0101	Heather-Erin Bremenstuhl, Harold Burgess	Seats (Total: 10)
	Contact instructor or department for details.	

CPSP239P **Practicum: Internship; Individual Practicum**

(Perm req)

Supervised internship in interest area related to the theme of the students' College Park Scholars program.

0101	Kelly Brower	Seats (Total: 5)
	Contact instructor or department for details.	

CPSP249P **Practicum: Service-Learning**

Supervised Service-Learning project in area related to the theme of the students' College Park Scholars program.

0101	Kelly Brower	Seats (Total: 1)
	Contact instructor or department for details.	

CPSP259J **Practicum: Research; Media, Self, and Society**

Supervised research project in interest area related to the students' College Park Scholars program.

Restricted to students in College Park Scholars Media, Self, and Society Program

Contact department for information to register for this course.

CPSP269 **Practicum: Peer Teaching**

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269B **Practicum: Peer Teaching**

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269E **Practicum: Peer Teaching**

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269F **Practicum: Peer Teaching**

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269N **Practicum: Peer Teaching**

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP339 **Advanced Practicum: Internship**

Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

Contact department for information to register for this course.

CPSP339J **Advanced Practicum: Internship; Media, Self and Society**

Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

0101	Kelly Brower	Seats (Total: 10)
	Contact instructor or department for details.	

CPSP339P **Advanced Practicum: Internship**

Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

0101	Susannah Washburn	Seats (Total: 10)
	Contact instructor or department for details.	

CPSP369A **Advanced Practicum: Peer Teaching; Arts**

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369E **Advanced Practicum: Peer Teaching**

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369G **Advanced Practicum: Peer Teaching**

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369J **Advanced Practicum: Peer Teaching**

Supervised advanced practicum in peer instruction.

0101	Kelly Brower	Seats (Total: 10)
	Contact instructor or department for details.	

CPSP369L **Advanced Practicum: Peer Teaching; Life Sciences**

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369N **Advanced Practicum: Peer Teaching; International Studies**

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369P **Advanced Practicum: Peer Teaching; Public Leadership**

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369T **Advanced Practicum: Peer Teaching; Science, Technology, and Society**

(Perm req)

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP388E **Advanced Special Topics in College Park Scholars; Advanced Special Topics in College Park Scholars**

Interdisciplinary topics of special interest to College Park Scholars, such as legacies of the cold war, environmental ethics, women in leadership, and other timely issues. Projects build on previous work in College Park Scholars.

Independent study to allow continuation of Connection Project from CPET101.

Contact department for information to register for this course.

CPSS100 **College Park Scholars: Science, Technology & Society First-Year Colloquium I**

Restriction: Students must be enrolled in the College Park Scholars Science, Technology & Society (CPSS) program.

Introductory colloquium: Examination of issues related to science, technology and society.

0101	David Tomblin, Nicole Mogul M 3:15pm - 4:55pm	Seats (Total: 65) CCC 1100
0102	David Tomblin, Nicole Mogul M 3:15pm - 4:55pm	Seats (Total: 40) CCC 1200

CPSS225 **College Park Scholars Capstone: Science, Technology, and Society**

Prerequisite: CPSS100. Restriction: Must be in the College Park Scholars Science, Technology & Society (CPSS) program. Formerly: CPSP227.

Exploration and understanding of ways science and technology shape and are shaped by society.

0101	Kuan-Hung Lo TuTh 12:30pm - 1:45pm	Seats (Total: 20) CCC 1105
0201	Kuan-Hung Lo TuTh 11:00am - 12:15pm	Seats (Total: 20) CCC 1105

CPSS240 **College Park Scholars: Science, Technology & Society - Service-Learning Practicum**

Restriction: Matriculation into the College Park Scholars Science, Technology & Society (CPSS) program; or permission of instructor.

Supervised Service-Learning practicum in issues related to science, technology and society.

Most of the class times will be spent at area Prince George's schools with partnering robotics teams. Consult the class requirements and locations provided in the syllabus at the beginning of the class. This course requires a $61 background check fee for working in Prince Georges County K-12 schools.

0201	Kuan-Hung Lo TuTh 3:30pm - 4:45pm	Seats (Total: 20) CCC 1105

CPSS340 **College Park Scholars: Infrastructure and Society**

Restriction: Must be currently enrolled in a College Park Scholars program. Credit only granted for: CPSP349T or CPSS340. Formerly: CPSP349T.

One of the most important, and underappreciated, aspects of our society is its infrastructure (roads, buildings, communication systems, water delivery systems, sanitation systems, energy systems, etc.). We often take for granted the services infrastructure bring us. As a consequence, the United States, which at one time was a world leader in creating infrastructure, is experiencing an infrastructure crisis. Furthermore, not everyone experiences this issue equally. This course is designed to identify the root causes of the crisis. You will explore emerging social, political, legal, cultural, and social justice issues associated with the building and maintenance of infrastructure from the perspective of Science and Technology Studies (STS) and engineers. You will work with a volunteer corps of professional engineers from a variety of disciplines on a service-learning project designed to assess the safety and vitality of infrastructure.

0101	David Tomblin	Seats (Total: 20)	
	TuTh 2:00pm - 3:15pm	CCC 1115	

DANC Dance Fall 2023

DANC109 **Choreography I: Improvisation**

(Perm req)

An introduction to the process of spontaneous movement discovery involving solo and group movement experiences.

Prerequisite: by permission of department. Students must pay a $25.00 lab fee.

5501	Sara Pearson	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	PAC 1912	Lab

DANC118 **Beginning Tap**

Introduction to tap for the beginning student.

Students must pay a $25 course fee.

5501	Gerson Lanza Ruiz	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	PAC 1908

DANC128 **Fundamentals of Ballet**

Introduction to ballet technique and terminology for the beginning student.

Students must pay a $25 lab fee.

5501	Peter Pattengill	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	PAC 1908

DANC138G **Global Dance Forms; World Dance Improvisation**

Movement course. Traditional dances and music of selected cultures.

Students must pay a $25 course fee.

5501	Javier Padilla Garcia TuTh 11:00am - 12:15pm	Seats (Total: 20) PKT 2102	

DANC138L **Global Dance Forms; Latin Dance**

Movement course. Traditional dances and music of selected cultures.

Students must pay a $25 course fee.

5501	Mher Kandoyan MW 3:00pm - 4:15pm	Seats (Total: 25) PAC 1908	

DANC138P **Global Dance Forms; Hip Hop**

Movement course. Traditional dances and music of selected cultures.

Students must pay a $25 lab fee.

0101	Ama Law MW 3:30pm - 4:45pm	Seats (Total: 20) PAC 1610	

DANC148 **Fundamentals of Modern Dance**

Introduction to modern dance with emphasis on the development of fundamental movement skills.

Students must pay a $25 lab fee.

5502	Patrik Widrig MW 11:00am - 12:15pm	Seats (Total: 30) PAC 1908	Lab
5504	Mary Ford TuTh 12:30pm - 1:45pm	Seats (Total: 30) PAC 1912	Lab

DANC179 **Movement Integration**

(Perm req)

Conditioning and re-patterning techniques for achieving integrated movement.

Students must pay a $25.00 lab fee.

5501	Adriane Fang TuTh 2:00pm - 3:15pm	Seats (Total: 20) PAC 1611	Lab

DANC199 **Practicum in Choreography, Production and Performance I**

(Perm req)

Choreography, production, and performance of student works, both on and off campus.

Contact department for information to register for this course.

DANC200 **Introduction to Dance**

A study of dance as a form of communication and as an art form; a survey of the theories and styles of dance, and their relationships to other art forms.

0101	Kaela Lawrence TuTh 2:00pm - 3:15pm	Seats (Total: 25) TWS 0205	
0201	Kevin Clark TuTh 12:30pm - 1:45pm	Seats (Total: 15) TWS 0236	
0301	Adriane Fang TuTh 11:00am - 12:15pm	Seats (Total: 25) PAC 1611	
0401	Christina Collins TuTh 12:30pm - 1:45pm	Seats (Total: 25) PAC 1809	
FC01	Susan Miller TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 14) PAC 1809	

DANC200S **Introduction to Dance**

A study of dance as a form of communication and as an art form; a survey of the theories and styles of dance, and their relationships to other art forms.

Restricted to College Park Scholars - Arts.

0201	Kevin Clark TuTh 12:30pm - 1:45pm	Seats (Total: 15) TWS 0236	

DANC218 **Modern Dance I**

(Perm req)

Development of heightened body awareness, breath support, dynamic alignment, and spatial awareness. Focus on rhythmic clarity and musicality.

Prerequisite: permission of department. Students must pay a $25.00 lab fee.

5501	Alvin Mayes, Ama Law MWF 1:00pm - 2:30pm	Seats (Total: 17) PAC 1912	Lab

DANC219 **Modern Dance II**

(Perm req)

Continuation of the elements addressed in DANC218 with an added focus on momentum, the use of counter-tension, stability/mobility, suspension, and dynamic range.

Prerequisite: DANC218 and permission of department. Students must pay a $25.00 lab fee.

5501	Ama Law, Alvin Mayes	Seats (Total: 10)	
	MWF 1:00pm - 2:30pm	PAC 1912	Lab

DANC228 **Ballet I**

(Perm req)

Barre and center work for alignment, strength, flexibility and coordination. Introduction to ballet terminology.

Students must pay a $25.00 lab fee. Email Susan Miller at smille13@umd.edu for permission to register.

5501	Amber Daniels	Seats (Total: 10)	
	TuTh 2:00pm - 3:15pm	PAC 1908	Lab

DANC229 **Ballet II**

(Perm req)

Continuation of DANC228.

Students must pay a $25.00 lab fee. Email Susan Miller at smille13@umd.edu for permission to register.

5501	Amber Daniels	Seats (Total: 10)	
	TuTh 2:00pm - 3:15pm	PAC 1908	Lab

DANC299 **Practicum in Choreography, Production and Performance II**

(Perm req)

Continuation of DANC199.

Contact department for information to register for this course.

DANC304 **Dance Education I: Foundations**

(Perm req)

Restriction: Permission of ARHU-Dance department.

Organization and content of the studio dance class. Structuring developmentally appropriate dance experiences for students ages 3-18.

0101	Crystal Davis	Seats (Total: 28)	
	MW 1:00pm - 2:15pm	PAC 1908	

DANC309 **Choreography III: Dance Composition**

(Perm req)

Exploration of the structural elements of dance composition.

5501	Alvin Mayes	Seats (Total: 17)	
	MW 3:00pm - 4:45pm	PAC 1912	

DANC318 **Modern Dance III**

(Perm req)

Continuation of the elements addressed in DANC219 with an added focus on off-verticality, spirals, complex level changes, more complex and extended phrasing, responsiveness to accompaniment, vocalization.

Prerequisite: DANC219 and permission of department. Students must pay a $25.00 lab fee.

5501	Ama Law, Patrik Widrig	Seats (Total: 11)	
	MWF 9:00am - 10:30am	PAC 1912	Lab

DANC319 **Modern Dance IV**

(Perm req)

Continuation of the elements addressed in DANC318 with an added focus on movement subtlety and complexity, and stylistic demands.

Prerequisite: DANC318 and permission of department. Students must pay a $25.00 lab fee.

5501	Ama Law, Patrik Widrig	Seats (Total: 14)	
	MWF 9:00am - 10:30am	PAC 1912	Lab

DANC328 **Ballet III**

(Perm req)

Execution of the vocabulary of ballet movement with technical accuracy.

Students must pay a $25 lab fee. Email Susan Miller at smille13@umd.edu for permission to register.

5501	Kate Ladenheim	Seats (Total: 10)	
	TuTh 11:00am - 12:15pm	PAC 1908	

DANC329 **Ballet IV**

(Perm req)

Continuation of DANC328.

Students must pay a $25 lab fee. Email Susan Miller at smille13@umd.edu for permission to register.

5501	Kate Ladenheim TuTh 11:00am - 12:15pm	Seats (Total: 10) PAC 1908

DANC386 **Experiential Learning**

(Perm req)

Restriction: Junior standing or higher; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

Contact department for information to register for this course.

DANC398 **Directed Studies in Dance**

(Perm req)

Contact department for information to register for this course.

DANC399 **Practicum in Choreography, Production and Performance III**

(Perm req)

Continuation of DANC299.

Prerequisite: DANC 299.

0101	Adriane Fang Class time/details on ELMs	Seats (Total: 5) ONLINE	
0201	Sara Pearson Class time/details on ELMs	Seats (Total: 5) ONLINE	
0301	Maura Keefe Class time/details on ELMs	Seats (Total: 5) ONLINE	
0401	Alvin Mayes Class time/details on ELMs	Seats (Total: 5) ONLINE	
0501	Instructor: TBA Class time/details on ELMs	Seats (Total: 15) ONLINE	
0601	Kendra Portier Class time/details on ELMs	Seats (Total: 5) ONLINE	Lab

0701	Crystal Davis Class time/details on ELMs	Seats (Total: 5) ONLINE	
0801	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE	
0901	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE	Lab
1001	Adriane Fang Class time/details on ELMs	Seats (Total: 15) ONLINE	

DANC418 **Contemporary Modern**

Physical practice that sources postmodern dance influences, endurance training, improvisation, and choreographic composition to present movement practices as a form of investigation.

Students must pay a $25 lab fee.

5501	Kendra Portier TuTh 3:30pm - 4:45pm	Seats (Total: 15) PAC 1611	

DANC448 **Modern Dance V**

(Perm req)

Complex phrases of modern dance movement with emphasis on articulation and expression.

Prerequisite: DANC349 and aududition. Students must pay a $25.00 lab fee.

5501	Alvin Mayes, Patrik Widrig MWF 9:00am - 10:30am	Seats (Total: 10) PAC 1908	Lab

DANC449 **Modern Dance VI**

(Perm req)

Continuation of DANC448.

Prerequisite: DANC 448 and permission from the department Students must pay a $25.00 lab fee.

5501	Alvin Mayes, Patrik Widrig MWF 9:00am - 10:30am	Seats (Total: 5) PAC 1908	Lab

DANC468 **Dance Repertory**

(Perm req)

Form, content, music, design and performance of modern dance works.

5501	Ama Law TuTh 3:30pm - 5:00pm	Seats (Total: 12) PAC 1912	 Lab

DANC499 **Practicum in Choreography, Production and Performance IV**

(Perm req)

Advanced workshop in dance presentation, including performing, production and planned field experiences.

Prerequisite: DANC 399.

0101	Patrik Widrig Class time/details on ELMs	Seats (Total: 5) ONLINE
0201	Sara Pearson Class time/details on ELMs	Seats (Total: 5) ONLINE
0301	Maura Keefe Class time/details on ELMs	Seats (Total: 5) ONLINE
0401	Alvin Mayes Class time/details on ELMs	Seats (Total: 5) ONLINE
0501	Instructor: TBA Class time/details on ELMs	Seats (Total: 15) ONLINE
0601	Kendra Portier Class time/details on ELMs	Seats (Total: 5) ONLINE
0701	Crystal Davis Class time/details on ELMs	Seats (Total: 5) ONLINE
0801	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE
0901	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE
1001	Adriane Fang Class time/details on ELMs	Seats (Total: 15) ONLINE

DANC600 **Graduate Dance Research**

(Perm req)

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Supervised writing of reports and articles on selected dance subjects. Study of library resources and interviewing techniques. Preparation for written documentation of thesis project.

0101	Maura Keefe W 2:00pm - 4:30pm	Seats (Total: 5) PAC 1924	

DANC604 **Graduate Studies in Dance Pedagogy**

Restriction: Must be admitted to MFA in Dance; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Curriculum writing, lesson planning, class structure, assessment/grading, and practice in dance pedagogy. Includes preparation of syllabi and studio teaching practice. This course counts towards teaching ceritification in the State of Maryland.

Students must pay a $25 lab fee.

5501	Crystal Davis Tu 3:00pm - 4:15pm Th 3:00pm - 4:45pm	Seats (Total: 5) PAC 3730 PAC 1924	 Lab

DANC608 **Graduate Choreography I: Creative Process**

Developing and defining individual choreographic voice and vision in a shared studio setting.

Prerequisite: Admission to MFA in Dance or permission of department. Students must pay a $25.00 lab fee. Developing and defining individual choreographic voice and vision in a s ared studio setting.

5501	Kendra Portier MW 11:00am - 12:50pm	Seats (Total: 5) PAC 1610	 Lab

DANC610 **Workshop in the Direction of Dance Production**

(Perm req)

Prerequisite: DANC410; or students who have taken courses with comparable content may contact the department.

A lecture/laboratory course dealing with the relationship of the director to all of the activities involved in the presentation of a dance concert.

5501	Samuel Crawford, Kendra Portier M 5:00pm - 6:15pm	Seats (Total: 7) PAC 1924

DANC628 **Graduate Ballet**

Execution of the vocabulary of ballet movement with technical accuracy.

Students must pay a $25 lab fee.

5501	Kate Ladenheim TuTh 11:00am - 12:15pm	Seats (Total: 5) PAC 1908	

DANC648 **Advanced Modern Dance Technique I**

(Perm req)

Professional level training in contemporary dance techniques.

Students must pay a $25 lab fee.

5501	Alvin Mayes, Patrik Widrig MWF 9:00am - 10:30am	Seats (Total: 12) PAC 1908	Lab

DANC649 **Advanced Modern Dance Technique II**

(Perm req)

A continuation of DANC 648.

Students must pay a $25 lab fee.

5501	Alvin Mayes, Patrik Widrig MWF 9:00am - 10:30am	Seats (Total: 5) PAC 1908	Lab

DANC678 **Individual Movement Practice**

(Perm req)

Students in consultation with the adviser, propose a specific movement practice and can select the practice from the range of technique offerings in the program. Additional work in documenting and providing evidence of growth towards individual outcomes is required.

Contact department for information to register for this course.

DANC679 **Graduate Dance Performance**

An advanced performance course focusing on the restagings from noted scores of the choreographic works of significant artists in the field.

0101	Patrik Widrig Class time/details on ELMs	Seats (Total: 5) ONLINE	
0201	Sara Pearson Class time/details on ELMs	Seats (Total: 5) ONLINE	

0301	Maura Keefe Class time/details on ELMs	Seats (Total: 5) ONLINE
0401	Alvin Mayes Class time/details on ELMs	Seats (Total: 5) ONLINE
0501	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE
0601	Kendra Portier Class time/details on ELMs	Seats (Total: 5) ONLINE
0701	Crystal Davis Class time/details on ELMs	Seats (Total: 5) ONLINE
0801	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE
1001	Adriane Fang Class time/details on ELMs	Seats (Total: 5) ONLINE

DANC689C **Special Topics in Dance; Contemporary Modern**

Special Topics in dance theory, research or creative projects.

Students must pay a $25 lab fee.

5501	Kendra Portier TuTh 3:30pm - 4:45pm	Seats (Total: 10) PAC 1611

DANC689E **Special Topics in Dance; Dance Pedagogy - Dance Education**

Special Topics in dance theory, research or creative projects.

0101	Crystal Davis MW 1:00pm - 2:15pm	Seats (Total: 2) PAC 1908

DANC689F **Special Topics in Dance; Aesthetics of Collaboration in Performance: Theory & Practice**

Special Topics in dance theory, research or creative projects.

This class offers practical methods for the creation and analysis of collaborative performance projects. Taking for granted that all performance works engage collaboration, this class is organized around themes of media, materiality, site-specificity, and working within and against systems. These themes are the organizing principles for student projects, as well as exemplary works of theory and performance. Finally, this class, being about collaboration, looks at strategies for working together, and carries with it an ethic of kindness, constructive critique, and mutual support.

0101	Kate Ladenheim MW 2:30pm - 3:45pm	Seats (Total: 15) PAC 1809

DANC689O **Special Topics in Dance; Dance Pedagogy - Movement Integration**

Special Topics in dance theory, research or creative projects.

0101	Adriane Fang TuTh 2:00pm - 3:15pm	Seats (Total: 2) PAC 1611

DANC689P **Special Topics in Dance; Pedagogy Practicum: Hip Hop**

Special Topics in dance theory, research or creative projects.

0101	Ama Law MW 3:30pm - 4:45pm	Seats (Total: 1) PAC 1610

DANC698 **Independent Study in Dance**

(Perm req)

Directed independent study in theoretical topics.

Contact department for information to register for this course.

DANC699 **Thesis Writing Lab**

The final writing project in MFA dance degree demonstrates students' ability to write critically about their creative work in relation to the dance field at large. A successful written thesis demonstrates a familiarity with concepts from dance history and critical theory as well as an ability to analyze movement and choreography. During the thesis writing lab, each student organizes ideas and establishes individual goals for the written project.

0101	Maura Keefe M 2:30pm - 3:30pm	Seats (Total: 5) PAC 1924

DANC719 **Graduate Choreography III: Projects**

Research-based choreographic projects in preparation for the choreographed thesis project.

Prerequisite: Admission to MFA in Dance or permission of department. Students must pay a $25.00 lab fee. Research-based choreographic projects in preparation for the choreographed thesis project.

5501	Maura Keefe MW 11:00am - 12:50pm	Seats (Total: 7) PAC 1611

DANC777 **Internship in Dance**

(Perm req)

Restriction: Must be admitted to MFA in Dance; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Internship in dance advocacy, administration, education, community building, choreography, or performance with an agency off campus and with a national or international profile.

0101	Kendra Portier Class time/details on ELMs	Seats (Total: 5) ONLINE

DANC779 **Master's Tutorial for Performance**

Supervised performance experience for advanced dancers.

0401	Alvin Mayes Contact instructor or department for details.	Seats (Total: 15)
1001	Adriane Fang Contact instructor or department for details.	Seats (Total: 15)
2001	Kate Ladenheim Contact instructor or department for details.	Seats (Total: 15)

DANC788 **Master's Tutorial for Choreography; Graduate Tutorial**

Supervised production and presentation of a significant choreographic project.

0101	Patrik Widrig Class time/details on ELMs	Seats (Total: 3) ONLINE
0201	Sara Pearson Class time/details on ELMs	Seats (Total: 3) ONLINE
0301	Maura Keefe Class time/details on ELMs	Seats (Total: 3) ONLINE
0401	Alvin Mayes Class time/details on ELMs	Seats (Total: 3) ONLINE

0501	Instructor: TBA Class time/details on ELMs	Seats (Total: 3) ONLINE	
0601	Instructor: TBA Class time/details on ELMs	Seats (Total: 3) ONLINE	
0701	Crystal Davis Class time/details on ELMs	Seats (Total: 3) ONLINE	
0801	Instructor: TBA Class time/details on ELMs	Seats (Total: 3) ONLINE	
1001	Adriane Fang Class time/details on ELMs	Seats (Total: 3) ONLINE	

DANC799 **Master's Thesis Project**
Contact department for information to register for this course.

DATA Data Science and Analytics Fall 2023

DATA100 **Elementary Statistics and Probability**

Prerequisite: MATH110, MATH112, MATH113, or MATH115; or permission of CMNS-Mathematics department; or must have math eligibility of STAT100 or higher and math eligibility is based on the Math Placement Exam or the successful completion of Math 003 with appropriate eligibility. Restriction: Must not have completed MATH111; or must not have completed any STAT course with a prerequisite of MATH141. Cross-listed with: STAT100. Credit only granted for: DATA100 or STAT100.

Simplest tests of statistical hypotheses; applications to before-and-after and matched pair studies. Events, probability, combinations, independence. Binomial probabilities, confidence limits. Random variables, expected values, median, variance. Tests based on ranks. Law of large numbers, normal approximation. Estimates of mean and variance.

0111	Matthew Griffin MWF 11:00am - 11:50am M 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	 Discussion
0112	Matthew Griffin MWF 11:00am - 11:50am M 12:30pm - 1:45pm	Seats (Total: 31) ESJ 0202 PHY 4206	 Discussion
0121	Matthew Griffin MWF 11:00am - 11:50am Tu 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	 Discussion

0122	Matthew Griffin MWF 11:00am - 11:50am Tu 11:00am - 12:15pm	Seats (Total: 31) ESJ 0202 PHY 4206	Discussion
0123	Matthew Griffin MWF 11:00am - 11:50am Tu 12:30pm - 1:45pm	Seats (Total: 31) ESJ 0202 PHY 4206	Discussion
0124	Matthew Griffin MWF 11:00am - 11:50am Tu 2:00pm - 3:15pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0131	Matthew Griffin MWF 11:00am - 11:50am W 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0141	Matthew Griffin MWF 11:00am - 11:50am Th 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0211	Matthew Griffin MWF 12:00pm - 12:50pm M 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0212	Matthew Griffin MWF 12:00pm - 12:50pm M 2:00pm - 3:15pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0221	Matthew Griffin MWF 12:00pm - 12:50pm Tu 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 MTH 0105	Discussion
0222	Matthew Griffin MWF 12:00pm - 12:50pm Tu 11:00am - 12:15pm	Seats (Total: 31) ESJ 0202 EGR 2116	Discussion
0223	Matthew Griffin MWF 12:00pm - 12:50pm Tu 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0202 ARC 1105	Discussion

0224	Matthew Griffin MWF 12:00pm - 12:50pm Tu 2:00pm - 3:15pm	Seats (Total: 30) ESJ 0202 ARC 1105	Discussion
0231	Matthew Griffin MWF 12:00pm - 12:50pm W 9:30am - 10:45am	Seats (Total: 31) ESJ 0202 PHY 4206	Discussion
0241	Matthew Griffin MWF 12:00pm - 12:50pm Th 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0311	Archana Khurana MWF 2:00pm - 2:50pm M 11:00am - 12:15pm	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0312	Archana Khurana MWF 2:00pm - 2:50pm M 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0321	Archana Khurana MWF 2:00pm - 2:50pm W 11:00am - 12:15pm	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0322	Archana Khurana MWF 2:00pm - 2:50pm W 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0331	Archana Khurana MWF 2:00pm - 2:50pm Th 9:30am - 10:45am	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0333	Archana Khurana MWF 2:00pm - 2:50pm Th 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion

DATA110 **Applications of R for Data Science**

Prerequisite: DATA100, STAT100, or MATH135; or any 400-level STAT course. Cross-listed with: STAT110. Credit only granted for: STAT110 or DATA110.

Intended to prepare students for subsequent courses requiring computation with R, providing powerful and easy to use tools for statistical data analysis. Covers basics of R and R Studio including file handling, data simulation, graphical displays, vector and function operations, probability distributions, and inferential techniques for data analysis.

0101	Susan Mazzullo	Seats (Total: 120)	
	Meets August 28, 2023 - October 20, 2023		
	Class time/details on ELMs	ONLINE	

DATA120 **Python Programming for Data Science**

Prerequisite: STAT100, MATH135, or any 400-level STAT course.

An introduction to programming in Python language, using Jupyter Notebooks and Python scripts. Covers variables, conditionals, loops, functions, lists, strings, tuples, sets, dictionaries, files and visualization.

0101	Mohammad Nayeem Teli	Seats (Total: 100)	
	Meets October 23, 2023 - December 11, 2023		
	Class time/details on ELMs	ONLINE	

DATA200 **Knowledge in Society: Science, Data and Ethics**

Prerequisite: STAT100, MATH135, or any 400-level STAT course.

Course dedicated to the study of ethical issues associated with data science, including data collections, gathering existing data, ethical use of data, data analysis with teams, repeatability and reproducibility of data analysis, and academic and scientific integrity.

0101	Fardina Alam	Seats (Total: 30)	
	MWF 11:00am - 11:50am	CHM 1224	

DATA250 **Discrete Mathematics**

Prerequisite: DATA110 or DATA120; and MATH141.

Introduction to basic discrete mathematical and linear algebraic structures and use of these mathematical structures to solve programming problems. Logic, set theory, formal proof methodology, functions, and basic linear algebra.

0101	Todd Rowland	Seats (Total: 25)	
	MWF 10:00am - 10:50am	BPS 1236	
	F 9:00am - 9:50am	BPS 1236	Discussion

DATA320 **Introduction to Data Science**

Prerequisite: DATA110 or DATA120; and DATA200 and DATA250; or by permission of the DATA Program Director. Restriction: Must not be a Computer Science major. Jointly offered with: CMSC320. Credit only granted for: CMSC320 or DATA320.

An introduction to data science i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of several topics including statistical data analysis, basic data mining and machine learning algorithms, large-scale data management, cloud computing, and information visualization.

0101	Maksym Morawski TuTh 3:30pm - 4:45pm	Seats (Total: 3) ESJ 0224	
0201	Fardina Alam MW 3:30pm - 4:45pm	Seats (Total: 3) ESJ 0224	

DATA350 Data Visualization and Presentation

Prerequisite: STAT100, MATH135, or any 400 level STAT course; and DATA110 or DATA120.

Introduction to effective and intuitive visual representations of data, including customizing graphics, plotting arrays, statistical graphics, and representing time series.

0101	Vincent Lyzinski TuTh 11:00am - 12:15pm	Seats (Total: 25) CHM 1228	

DATA400 Applied Probability and Statistics I

Prerequisite: 1 course with a minimum grade of C- from (MATH131, MATH141); or students who have taken courses with comparable content may contact the department. Cross-listed with: STAT400. Credit only granted for: DATA400, ENEE324, or STAT400. Additional information: Not acceptable toward graduate degrees in MATH/STAT/AMSC.

Random variables, standard distributions, moments, law of large numbers and central limit theorem. Sampling methods, estimation of parameters, testing of hypotheses.

0111	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 1:00pm - 1:50pm	Seats (Total: 26) ESJ 0224 MTH 0104	 Discussion
0112	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 1:00pm - 1:50pm	Seats (Total: 26) ESJ 0224 MTH 0304	 Discussion
0113	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 1:00pm - 1:50pm	Seats (Total: 26) ESJ 0224 HBK 0103	 Discussion

0121	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 2:00pm - 2:50pm	Seats (Total: 26) ESJ 0224 MTH 0104	Discussion
0122	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 2:00pm - 2:50pm	Seats (Total: 26) ESJ 0224 MTH 0304	Discussion
0123	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 2:00pm - 2:50pm	Seats (Total: 26) ESJ 0224 HBK 0103	Discussion
0131	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 3:00pm - 3:50pm	Seats (Total: 26) ESJ 0224 MTH 0104	Discussion
0132	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 3:00pm - 3:50pm	Seats (Total: 26) ESJ 0224 MTH 0304	Discussion
0133	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 3:00pm - 3:50pm	Seats (Total: 26) ESJ 0224 HBK 0103	Discussion
0211	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH B0427	Discussion
0212	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0304	Discussion
0213	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 9:00am - 9:50am	Seats (Total: 29) ARM 0126 PHY 2214	Discussion
0221	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH B0427	Discussion

0222	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 10:00am - 10:50am	Seats (Total: 30) ARM 0126 MTH 0304	Discussion
0223	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 10:00am - 10:50am	Seats (Total: 29) ARM 0126 PHY 2214	Discussion
0231	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH B0427	Discussion
0232	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH 0304	Discussion
0233	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 11:00am - 11:50am	Seats (Total: 30) ARM 0126 PHY 2214	Discussion
0311	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 8:00am - 8:50am	Seats (Total: 29) ARM 0126 PHY 2214	Discussion
0312	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 8:00am - 8:50am	Seats (Total: 30) ARM 0126 MTH B0423	Discussion
0313	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 8:00am - 8:50am	Seats (Total: 29) ARM 0126 MTH 0103	Discussion
0321	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 9:00am - 9:50am	Seats (Total: 30) ARM 0126 PHY 2214	Discussion
0322	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH B0423	Discussion

0323	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0103	Discussion
0331	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 10:00am - 10:50am	Seats (Total: 30) ARM 0126 PHY 2214	Discussion
0332	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH B0423	Discussion
0333	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH 0103	Discussion
0411	Hatice Sahinoglu MWF 12:00pm - 12:50pm Th 1:00pm - 1:50pm	Seats (Total: 28) IRB 0318 MTH 0304	Discussion
0412	Hatice Sahinoglu MWF 12:00pm - 12:50pm Th 2:00pm - 2:50pm	Seats (Total: 28) IRB 0318 MTH 0304	Discussion

DATA601 **Probability and Statistics**

Prerequisite: Undergraduate courses in calculus and basic linear algebra. Cross-listed with: BIOI601, MSML601. Credit only granted for: BIOI601, DATA601 or MSML601.

Provides a solid understanding of the fundamental concepts of probability theory and statistics. The course covers the basic probabilistic concepts such as probability space, random variables and vectors, expectation, covariance, correlation, probability distribution functions, etc. Important classes of discrete and continuous random variables, their inter-relation, and relevance to applications are discussed. Conditional probabilities, the Bayes formula, and properties of jointly distributed random variables are covered. Limit theorems, which investigate the behavior of a sum of a large number of random variables, are discussed. The main concepts random processes are then introduced. The latter part of the course concerns the basic problems of mathematical statistics, in particular, point and interval estimation and hypothesis testing.

PCS1	Leonid Koralov W 6:00pm - 8:45pm *Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.*	Seats (Total: 50) CSI 1122	

PCS2	Sandra Cerrai W 6:00pm - 8:45pm	Seats (Total: 40) CSI 1121
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	
PCS3	Jonathan Fernandes W 6:00pm - 8:45pm	Seats (Total: 40) CSI 3117
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

DATA602 Principles of Data Science

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: BIOI602, MSML602. Credit only granted for: BIOI602, DATA602, MSML602 or CMSC641. Formerly: CMSC641.

An introduction to the data science pipeline, i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of what data science means and systems and tools commonly used for data science, and illustrates the principles of data science through several case studies.

PCS1	Mohammad Hajiaghayi Tu 6:00pm - 8:45pm	Seats (Total: 70) IRB 0318
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	
PCS2	Mohammad Hajiaghayi Th 6:00pm - 8:45pm	Seats (Total: 70) IRB 0318
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

DATA603 Principles of Machine Learning

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: BIOI603, MSML603, MSQC603. Credit only granted for: BIOI603, DATA603, MSML603, MSQC603 or CMSC643. Formerly: CMSC643.

A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning: Bayes decision theory, discriminant functions, maximum likelihood estimation, nearest neighbor rule, linear discriminant analysis, support vector machines, neural networks, deep learning networks. Unsupervised learning: clustering, dimensionality reduction, PCA, auto-encoders. The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

PCS1	Babak Azimi-Sadjadi Th 6:00pm - 8:45pm	Seats (Total: 60) CSI 3117
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	
PCS2	Alejandra Mercado F 9:00am - 11:45am	Seats (Total: 50) CSI 1122
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	
PCS3	Babak Azimi-Sadjadi Sa 9:00am - 11:45am	Seats (Total: 40) EGR 1104
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

DATA607 Communication in Data Science and Analytics

Prerequisite: DATA602.

Expected learning outcomes include that, in the context of data science and analytics, students should be able to: summarize, report, organize prose, statistics, graphics, and presentations; explain uncertainty, sensitivity/robustness, limitations; describe model generation and representation; discuss interpretations and implications; communicate effectively to diverse audiences within a business organization, and possibly other outcomes.

PCS1	Vincent Lyzinski W 6:00pm - 8:45pm	Seats (Total: 50) PHY 4221
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

DATA650 Cloud Computing

Cross-listed with: MSML650. Credit only granted for: MSML650 or DATA650.

Presents the state of the art in cloud computing technologies and applications. Topics will include: telecommunications needs, architectural models for cloud computing, cloud computing platforms and services. Data center networking, server, network and storage virtualization technologies, and containerization. Cloud operating and orchestration systems. Security, privacy, and trust management; resource allocation and quality of service; interoperability and internetworking.

PCS1	Zoltan Safar Tu 6:00pm - 8:45pm	Seats (Total: 50) CSI 2117
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

ECON Economics Fall 2023

The Department of Economics enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course.

ECON111 **Thinking Like an Economist**

Restriction: Must be sophomore standing or lower.

An introduction to the modes of thought of economics. Use of simple standard tools of economics to analyze important problems that arise frequently in public policy, the news media, and in daily life. An emphasis on how economists predict what choices societies make and how economists analyze whether those are good choices. Practical application of a variety of economic tools leading to a focus on the essential unity underlying these analytical tools, viewing economics as a discipline that applies a core methodology in different ways in different situations.

0101	Peter Murrell MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 18) TYD 1101 TYD 2111	 Discussion
0102	Peter Murrell MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 18) TYD 1101 TYD 2111	 Discussion
0103	Peter Murrell MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 18) TYD 1101 TYD 1101	 Discussion

ECON175 **Inequality: Determinants and Policy Remedies**

History shows that the gap between the rich and the poor has varied over time within and between countries, most recently seeming to increase within many countries while somewhat decreasing between countries. This course challenges students to investigate why people make different amounts of money, why income inequality has changed dramatically in recent years, what public policy tools exist to counter inequality increases, and what different institutional arrangements different countries use to lower inequality. This course will introduce students to theoretical tools used by economists to understand the sources of inequality and will also examine various empirical measures of inequality.

0101	Ethan Kaplan MW 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 16) TWS 0310 WDS 1102	 Discussion
0102	Ethan Kaplan MW 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 16) TWS 0310 WDS 1102	 Discussion

0103	Ethan Kaplan MW 9:00am - 9:50am F 11:00am - 11:50am	Seats (Total: 16) TWS 0310 TYD 1101	 Discussion
0104	Ethan Kaplan MW 9:00am - 9:50am F 12:00pm - 12:50pm	Seats (Total: 16) TWS 0310 TYD 1101	 Discussion

ECON200 **Principles of Microeconomics**

Prerequisite: MATH107 or MATH110; or must have math eligibility of MATH113 or higher. Credit only granted for: ECON200, AREC240, or AREC250. Additional information: It is recommended that students complete ECON200 before taking ECON201.

Introduces economic models used to analyze economic behavior by individuals and firms and consequent market outcomes. Applies conceptual analysis to several policy issues and surveys a variety of specific topics within the broad scope of microeconomics.

0101	Erin Moody TuTh 9:30am - 10:45am	Seats (Total: 375) TYD 0130	
0201	Stefania Scandizzo TuTh 11:00am - 12:15pm	Seats (Total: 375) TYD 0130	
0301	Hossein Abbasi TuTh 12:30pm - 1:45pm	Seats (Total: 375) TYD 0130	
FC01	Hossein Abbasi MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 218) TYD 0130	

ECON201 **Principles of Macroeconomics**

Prerequisite: MATH107 or MATH110; or must have math eligibility of MATH113 or higher. Recommended: ECON200. Credit only granted for: ECON201 or ECON205.

An introduction to how market economies behave at the aggregate level. The determination of national income/output and the problems of unemployment inflation, will be examined, along with monetary and fiscal policy.

0101	John Shea TuTh 2:00pm - 3:15pm	Seats (Total: 250) ARC 0204	
0201	Naveen Sarna TuTh 3:30pm - 4:45pm	Seats (Total: 250) TYD 0130	

ECON230 **Applied Economic Statistics**

Prerequisite: Must have math eligibility of MATH113 or higher; or 1 course with a minimum grade of C- from (MATH107, MATH110); and minimum grade of C- in ECON200 and ECON201. Recommended: Students should already have basic familiarity with Microsoft Excel or similar spreadsheet software. Restriction: Must be in Economics Bachelor of Arts program.

Introductory course to develop understanding of statistical concepts used in applied economics. Students will acquire skills needed to calculate and interpret statistical concepts, including descriptive statistics, probability, discrete and continuous distributions, sampling, point and interval estimations, hypothesis testing, basic analysis of variance, and simple linear regression models. Students will apply these concepts to data using both handheld calculators and spreadsheets(Excel), and students will be introduced to an econometric software package such as SPSS or SAS or R.

0101	Pierre De Leo TuTh 3:30pm - 4:45pm	Seats (Total: 38) TYD 2102

ECON300 **Methods and Tools for Economic Analysis**

Prerequisite: 1 course with a minimum grade of C- from (ECON200, ECON201); and minimum grade of C- in MATH140. Restriction: Must be in Economics Bachelor of Science program; and must not have completed MATH241.

Economic application of mathematical tools and concepts necessary for intermediate and advanced coursework in economics. Topics include: multivariable calculus, constrained optimization, foundational coverage of probability theory, and exponential/logarithmic functions.

0101	Chenyu Yang MW 2:00pm - 3:15pm	Seats (Total: 60) TYD 0102

ECON305 **Intermediate Macroeconomic Theory and Policy**

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140). Credit only granted for: ECON305 or ECON325.

Analysis of the determination of national income, employment, and price levels. Discussion of consumption, investment, inflation, and government fiscal and monetary policy.

0101	Martina Copelman TuTh 11:00am - 12:15pm	Seats (Total: 100) ESJ 1224
0201	Martina Copelman TuTh 3:30pm - 4:45pm	Seats (Total: 100) TYD 0117

ESG1	Seho Kim MW 9:30am - 10:45am	Seats (Total: 45) ONLINE
	Restricted to BMGT-Shady Grove students. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

ECON306 **Intermediate Microeconomic Theory & Policy**

Prerequisite: 1 course with a minimum grade of C- from (ECON200, AREC250); and minimum grade of C- in ECON201; and 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140). Credit only granted for: ECON306, ECON326, AREC489M, or AREC326.

Analysis of the theories of consumer behavior, producer behavior, different market structures, and various sources of inefficient outcomes. Analysis of microeconomic policies designed to improve market outcomes.

0101	Aaron Finkle MWF 11:00am - 11:50am	Seats (Total: 150) ESJ 1224
0201	Aaron Finkle MWF 12:00pm - 12:50pm	Seats (Total: 150) ESJ 1224
ESG1	William Leroy Class time/details on ELMs	Seats (Total: 40) ONLINE
	Restricted to BMGT-Shady Grove students. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

ECON311 **American Economic History Before the Civil War**

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Economic concepts are used to analyze various aspects of the founding and early history of the U.S., including the British settlement of the North American colonies, the economics of the American Revolutionary war, the writing of the Constitution, the development of financial markets, policies on public lands and the spread of western agriculture, slavery, banking, and early industrialization.

0101	John Wallis TuTh 9:30am - 10:45am	Seats (Total: 90) TYD 0117

ECON314 **Economic History, Development and Policy**

Prerequisite: ECON200 and ECON201.

Study abroad in the economic history, institutional development, and recent economic policy problems of selected areas.

Contact department for information to register for this course.

ECON315 Economic Development of Underdeveloped Areas

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Credit only granted for: ECON315 or ECON416.

Analysis of the economic and social characteristics of underdeveloped areas. Recent theories of economic development, obstacles to development, policies and planning for development.

Contact department for information to register for this course.

ECON317 Global Economic Policies

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Analysis of policy options and debates on fostering economic growth and development in a global economy where national boundaries are no longer relevant. Topics covered will include real loanable funds markets in both local and international contexts during normal conditions and during financial crises, the design of trade and industrial policies, and the role of the World Bank, IMF, WTO, and other international agencies as well as regional and bilateral trade agreements. Emerging economies will be emphasized.

0101	Naveen Sarna TuTh 2:00pm - 3:15pm	Seats (Total: 40) TYD 0111
0201	Naveen Sarna TuTh 5:00pm - 6:15pm	Seats (Total: 40) TYD 0111

ECON321 Economic Statistics

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and minimum grade of C- in ECON300 or (MATH241 and any statistics course). Restriction: Must be in Economics Bachelor of Science program.

Introduction to the use of statistics in economics. Topics include: Probability, random variables and their distributions, sampling theory, estimation, hypothesis testing, analysis of variance, regression analysis and correlation.

0101	Alka Gandhi MWF 10:00am - 10:50am	Seats (Total: 45) SQH 1119

ECON325 Intermediate Macroeconomic Analysis

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and minimum grade of C- in ECON300 or (MATH241 and any statistics course). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON305 or ECON325.

Analysis of macroeconomic behavior and policy with emphasis on theoretical rigor. Topics include the determinants of economic growth, unemployment, inflation, and international economic flows.

0101	L Stevens MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 25) SQH 1117 TYD 0111	 Discussion
0102	L Stevens MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 25) SQH 1117 TYD 0102	 Discussion

ECON326 Intermediate Microeconomic Analysis

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and minimum grade of C- in ECON300 or (MATH241 and any statistics course). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON306, ECON326, or AREC326.

Analysis of economic decision-making by individuals and firms, the resulting market outcomes, and applications to real-world problems. Emphasis on analytical logic and theoretical rigor. Topics covered include consumer preferences and utility maximization, perfect competition and market power, uncertainty and risk, externalities, and asymmetric information.

0101	Ginger Jin MW 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 25) TWS 0320 TYD 1132	 Discussion
0102	Ginger Jin MW 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 25) TWS 0320 TYD 1132	 Discussion

ECON327 Behavioral Economics

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Integrating the insights of psychology into economics. Analysis of the ways in which individuals make decisions that systematically depart from the so-called "standard model" of homo economicus, which assumes perfect rationality, perfect selfishness, and perfect willpower. Investigating the implications of the major findings of behavioral economics for policymakers.

0101	Erkut Ozbay TuTh 11:00am - 12:15pm	Seats (Total: 65) TYD 0117	

ECON330 Money and Banking

Prerequisite: Minimum grade of C- in ECON200 and ECON201.

The structure of financial institutions and their role in the provision of money and near money. Analysis of the Federal Reserve System, the techniques of central banks, and the control of supply of financial assets in stabilization policy. Relationship of money and credit to economic activity and the price level.

0101	Thomas Drechsel MW 9:30am - 10:45am	Seats (Total: 250) SKN 0200

ECON340 **International Economics**

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Credit only granted for: ECON340 or ECON441.

Introduces economic models of international trade and finance. Analyzes policies designed to promote and restrict international trade and to manage exchange rates and impact international capital flows.

Contact department for information to register for this course.

ECON358K **Special Topics in Study Abroad III; Spreadsheets and Data in Economics**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON358L **Special Topics in Study Abroad III; Economics of Social Issues**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON358M **Special Topics in Study Abroad III; Financial Markets and Institutions**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON358N **Special Topics in Study Abroad III; History of Economic Thought**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON371 **Economic Analysis of Good, Evil, and Fairness**

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Examines how economic tools can be used to analyze and better understand issues of "Good", "Evil" and "Fairness". Considers questions such as: What is the relation between fairness and equal treatment? Between fairness and equality? What makes an economic or political system "fair" or "unfair"? What makes a system "good"?

0101	Allan Drazen MW 2:00pm - 3:15pm	Seats (Total: 20) TYD 0101

ECON386 **Experiential Learning**

(Perm req)

Prerequisite: ECON201 and ECON200. Restriction: Permission of BSOS-Economics department; and must be in a major within the BSOS-Economics department; and minimum cumulative GPA of 2.5; and junior standing or higher.

See Department Advising Office for course eligibility, course requirements, and application information.

Student and internship eligibility requirements, along with the ECON386 application, can be found at: http://ter.ps/ECON386.

Contact department for information to register for this course.

ECON387 **Career Preparation for Economics Majors**

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science) ; and must have earned a minimum of 30 credits.

Increase student knowledge of career paths, job search tools, and strategies for successfully obtaining a job with a BA or BS in economics. Students will engage in a range of different activities which build their understanding of job opportunities in economics and hone their abilities to find positions they want. Students will reflect on specific skills employers seek from economics graduates and incorporate that knowledge in their own individual job search and career plan.

0101	Stefania Scandizzo **Meets August 28, 2023 - October 17, 2023** Th 4:00pm - 5:50pm Class time/details on ELMs	Seats (Total: 20) LEF 1171 ONLINE	 Discussion
0201	Stefania Scandizzo **Meets October 18, 2023 - December 11, 2023** Th 4:00pm - 5:50pm Class time/details on ELMs	Seats (Total: 20) LEF 1171 ONLINE	 Discussion

ECON396 **Independent Honors Study**

(Perm req)

Restriction: Permission of BSOS-Economics department.

First semester of the departmental honors sequence. Students will develop and apply research skills required to carry out original research. By the end of the semester students will have produced a complete draft of an honors thesis resembling a scholarly journal article.

0101	Nolan Pope TuTh 9:30am - 10:45am	Seats (Total: 15) TYD 2111

ECON397 **Honors Thesis**

Prerequisite: ECON396. Restriction: Must be a candidate for honors in economics.

General supervision will be provided through assembled meetings with the professor in charge of the course.

Contact department for information to register for this course.

ECON398H **Topics in Economics; British Economy and Financial System**

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON398L **Topics in Economics; The British Economy and Financial Systems**

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON399 **Independent Study in Economics**

(Perm req)

Integrated readings and independent study under direction and supervision of a faculty member. Contact department for additional information.

Permission of instructor must be arranged in advance. Open only to students who have previously earned 6 or more credits in upper division economics courses.

Contact department for information to register for this course.

ECON401 **Current Issues in American Economic Policy**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON424, ECON422, ECON426). Restriction: Permission of BSOS-Economics department; Must be in Economics Bachelor of Arts program.

Analysis of current economic problems and public policies. Topics could include poverty, income inequality, social insurance, education, environmental sustainability, immigration, and innovation. Other issues may be substituted depending on current events.

0101	Katharine Abraham	Seats (Total: 27)
	MW 9:30am - 10:45am	TYD 2111

ECON402 **Macroeconomic Models and Forecasting**

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Analysis of the fluctuations in economic activity and the formulation and use of forecasting models of the economy. Illustrations of computer macro models and forecasting problems.

0101	Boragan Aruoba	Seats (Total: 50)
	MW 2:00pm - 3:15pm	TYD 2106

ECON410 **Comparative Economic Institutions**

Prerequisite: Minimum grade of C- in ECON325 and ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

Institutions are the sets of rules that constrain the decisions and interactions of economic agents. The course uses economic analysis to understand both formal institutions (e.g. laws) and informal institutions (e.g. cultural norms). Practical examples are drawn from economics, law, and politics, and reflect the experience of many different countries.

0101	Peter Murrell	Seats (Total: 15)
	MW 11:00am - 12:15pm	TYD 0111

ECON414 **Game Theory**

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321, STAT400). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science). Credit only granted for: CMSC474, ECON414, GVPT399A or GVPT390.

Studies the competitive and cooperative behavior that results when several parties find that their individual outcomes are jointly determined. Students will learn how to use game theory to analyze situations of potential conflict. Applications are drawn from economics, business, and political science.

0101	Daniel Vincent	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	TYD 0102

ECON416 **Analysis of Economic Development**

Prerequisite: Minimum grade of C- in ECON325, ECON326, and ECON422. Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON315 or ECON416.

Analysis of the determinants and influences on economic development. Emphasis on both theoretical models and econometric methods of explaining why some countries are poor, along with examination of policies to promote development.

Contact department for information to register for this course.

ECON417 **Estimating Policy and Program Impact**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326) and 1 course with a minimum grade of C- from (ECON424, ECON422). Restriction: Permission of BSOS-Economics department; Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science).

Governments, businesses, non-profits, funders, and other organizations must allocate scarce resources between competing uses. Understanding the causal effect of policies, programs or investments on key outcomes can guide the choices of these decision-makers. Correlations between policies and outcomes or changes in outcomes after new policies are adopted are rarely sufficient for estimating the causal effect, however. This course focuses on econometric strategies for obtaining unbiased causal estimates, including experimental methods, instrumental variables, regression discontinuity, and differences-in-differences. There will be an emphasis on using Stata and on interpreting the results of econometric analysis

0101	Sergio Urzua MW 11:00am - 12:15pm	Seats (Total: 40) TYD 0102

ECON418C **Economic Development of Selected Areas; China**

Economic and institutional characteristics of a specific geographic area are identified and discussed, and alternate strategies and policies for development are analyzed.

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: ECON418C or AREC447. An introductory survey course of economic development in China with emphasis on understanding the process of economic reform in mainland China since 1978.

0101	Jing Cai TuTh 11:00am - 12:15pm	Seats (Total: 30) SYM 0200

ECON422 **Econometrics**

Prerequisite: 1 course with a minimum grade of C- from (ECON325, ECON326); and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON422, ECON424, or AREC422.

Emphasizes the interaction between economic problems and the assumptions employed in statistical theory. Formulation, estimation, and testing of economic models, including single variable and multiple variable regression techniques, theory of identification, and issues relating to inference.

0101	Alka Gandhi MWF 12:00pm - 12:50pm	Seats (Total: 30) TYD 2109
0201	Alka Gandhi MWF 1:00pm - 1:50pm	Seats (Total: 30) TYD 2106

ECON423 **Advanced Topics in Econometrics**

Prerequisite: Minimum grade of C- in ECON422. Restriction: Must be in Economics Bachelor of Science program.

Interaction between economic problems and specification and estimation of econometric models. Topics may include: autocorrelation, heteroscedasticity, functional form, simultaneous equation models, logit and probit models, instrumental variables, qualitative choice models, and other computational methods.

0101	Maureen Cropper	Seats (Total: 38)
	MW 3:30pm - 4:45pm	TYD 2102

ECON424 **Applied Econometrics**

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON306, ECON325, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: ECON422, ECON424 or AREC422.

Provide the knowledge and skills necessary to accomplish and utilize basic applied econometric analysis utilized by many business service providers, government agencies, and nonprofits engaged in policy analysis. Topics include simple and multiple regressions using cross section, time series, and panel data, issues of heteroskedasticity, serial correlation, and multicollinearity, models with binary dependent variable, and program evaluation. Course emphasizes application of knowledge using software packages but still covers essential theoretical background.

0101	Hossein Abbasi	Seats (Total: 48)
	TuTh 11:00am - 12:15pm	TYD 2102

ECON425 **Mathematical Economics**

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326). Restriction: Must be in Economics Bachelor of Arts program.

Covers mathematical tools and skills utilized in upper undergraduate and master's level coursework in Economics and Public Policy. Reviews calculus and math of finance and growth. Introduces techniques of optimization, linear algebra, and differential equations and connects them to micro and macro theory and applications. Topics will also include coverage of probability theory to explore how economists model uncertainty, as well as economic applications of integration.

Contact department for information to register for this course.

ECON432 **Applied Machine Learning**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (ECON422, ECON424). Restriction: Permission of BSOS-Economics department; Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science).

Offers a comprehensive examination of the concepts and techniques used in machine learning, with a specific emphasis on their applications in economics. Focuses on the practical aspects of machine learning, including the use of different methods, model selection, and performance evaluation. Students will explore both supervised and unsupervised learning techniques, such as linear and non-linear regression, k-nearest neighbors, tree-based approaches, support vector machines, neural networks, and dimensionality reduction methods. Additional advanced methods may be covered, depending on the time available. Hands-on implementation of these techniques will be conducted using the R programming language.

0101	Hossein Abbasi TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 20) TYD 2102 TYD 2106	 Lab
0102	Hossein Abbasi TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 20) TYD 2102 TYD 2106	 Lab

ECON442 **Globalization and Capital Markets**

Prerequisite: Minimum grade of C- in ECON326 and ECON325; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program; and must not have completed ECON441. Credit only granted for: ECON441 or ECON442.

Uses models of open-economy macroeconomics to explain the causes and consequences of international capital flows. Analysis is made of private consumption, investment, the government sector, current accounts, the labor market, and the money and foreign exchange markets in small open economies. This framework is then used to study examples of how speculative attacks on currencies, sudden reversals of capital inflows, and the effects of the lack of credibility of economic policy affect economic development.

0101	Martina Copelman TuTh 2:00pm - 3:15pm	Seats (Total: 38) TYD 2102	

ECON443 **International Trade and Trade Policy in the New Global Economy**

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program; and must not have completed ECON441. Credit only granted for: ECON441 or ECON443.

Examines the economics of international economic integration, including the theory of customs unions and free trade areas, the role of GATT and the WTO, changes in individual countries' foreign trade policies during the new era of globalization, the special role of multinational firms in world trade, and recent controversies about the benefits and costs of globalized trade.

0101	Stefania Scandizzo TuTh 2:00pm - 3:15pm	Seats (Total: 38) TYD 1101	

ECON451 **Public Choice**

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Analysis of collective decision making, economic models of government, program budgeting, and policy implementation; emphasis on models of public choice and institutions which affect decision making.

0101	Peter Coughlin MWF 12:00pm - 12:50pm	Seats (Total: 38) TYD 1118
0201	Peter Coughlin MWF 1:00pm - 1:50pm	Seats (Total: 38) TYD 1118

ECON453 **Natural Resources and Public Policy**

Prerequisite: AREC326, ECON306, or ECON326; and (BMGT230 or ECON230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts; Environmental Science & Policy-Env Economics). Cross-listed with: AREC453. Credit only granted for: AREC453 or ECON453.

Rational use and reuse of natural resources. Theory, methodology, and policies concerned with the allocation of natural resources among alternative uses. Optimum state of conservation, market failure, safe minimum standard, and cost-benefit analysis.

0101	Erik Lichtenberg TuTh 2:00pm - 3:15pm	Seats (Total: 36) ESJ B0320

ECON454 **Public Finance and Public Policy**

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, STAT400, ECON321). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science).

The role of the the public sector in a market economy constitutes the over-arching topic of this course. Emphasis lies on analyzing government expenditure programs and the microeconomics of tax policy.

0101	Daniel Reck MW 3:30pm - 4:45pm	Seats (Total: 48) TYD 1102

ECON456 **Law and Economics**

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Relationship of the exchange process to the system of institutions and rules that society develops to carry out economic transactions. Topics covered include: Property rights; torts, negligence, and liability; contracts and exchanges; criminal control and enforcement; equity and efficiency issues .

0101	Aaron Finkle	Seats (Total: 80)
	MW 2:00pm - 3:15pm	TYD 0117

ECON458J **Special Topics in Study Abroad IV; Topics in Econometrics**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON461 **Economics of Regulation and Anti-trust**

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Considers government intervention in economic activity of three types: antitrust policy, regulation of natural monopolies, and health safety regulation. Covers theoretical models, real-world policy applications, and empirical studies relevant to the impact of regulation.

0101	Andrew Sweeting	Seats (Total: 38)
	MW 9:30am - 10:45am	TYD 2106

ECON481 **Environmental Economics**

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Environmental Science & Policy-Env Economics; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts program). Cross-listed with: AREC481. Credit only granted for: ECON481 or AREC481.

An exploration of the use of economic incentives for protection of the environment and the determination of appropriate (or efficient) level of environmental quality. Also covers the choice of policy instruments for the attainment of environmental standards.

Contact department for information to register for this course.

ECON485 **Economics of Land Use**

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: AREC455. Credit only granted for: AREC455 or ECON485.

Fundamentals of location theory. Microeconomics of land use decisions, including determination of rent and hedonic pricing models. Impacts of government decisions on land use, including regulation (e.g., zoning), incentives (transferable development rights), provision of public services, and infrastructure investments. Impacts of land use on environmental quality, including issues relating to sprawl, agricultural land preservation, and other topics of special interest.

Click here to review the ECON course list to determine how this course will count towards your major.

0101	David Newburn TuTh 3:30pm - 4:45pm	Seats (Total: 80) BPS 1243	

ECON499 **Independent Research in Economics**

(Perm req)

Directed research under the supervision of a faculty member. Contact department for additional information.

Contact department for information to register for this course.

ECON601 **Macroeconomic Analysis I**

(Perm req)

Restriction: Permission of BSOS-Economics department.

Introductory technical treatment of standard Keynesian, classical and new classical macroeconomic models. Expectations formation and microeconomic foundations of consumption, investment, money demand, and labor market behavior.

0101	Boragan Aruoba, John Shea MW 12:15pm - 1:30pm M 5:00pm - 6:45pm	Seats (Total: 45) TYD 2102 TYD 1132	 Discussion

ECON603 **Microeconomic Analysis I**

(Perm req)

Restriction: Permission of BSOS-Economics department.

A detailed treatment of the theory of the consumer and of the firm, particularly emphasizing the duality approach. Topics include the household production model, imperfect competition, monopolistic and oligopolistic markets.

0101	Emel Filiz Ozbay, Lawrence Ausubel TuTh 2:00pm - 3:15pm Tu 5:15pm - 6:45pm	Seats (Total: 50) TYD 1118 TYD 1132	 Discussion

ECON623 **Econometrics I**

(Perm req)

Prerequisite: Must have advanced knowledge of probability, statistics, and linear algebra. Restriction: Permission of BSOS-Economics department.

Topics covered include problems of specification, estimation, hypothesis testing, and prediction in linear models. Topics include: classical linear regression and ordinary least squares, generalized linear models and generalized least squares, identification and estimation of simultaneous equation models including discussion of two-stage and three-stage least squares and other instrumental variable estimation methods. Both finite and large sample analysis of econometric procedures will be covered, and there will also be discussion of general hypothesis testing principles including discussion of misspecification tests. In addition, the course will provide instructions on the use of a major statistical package such as Stata.

0101	Guido Kuersteiner TuTh 11:00am - 12:15pm W 5:30pm - 7:15pm	Seats (Total: 41) TYD 1114 TYD 1101	 Discussion

ECON626 **Empirical Microeconomics**

(Perm req)

Prerequisite: ECON624. Restriction: Must be in Economics (Doctoral) program.

An overview is provided of modern microeconometric methods with a focus on reduced form causal inference. Tools discussed include linear regression and selection on observables, instrumental variables including LATE and the role of heterogeneity in causal inference, difference-in-difference, regression discontinuity, synthetic control, matching, propensity score methods, and inverse probability weighted estimation. In addition, inferential issues such as weak instruments and techniques for robust standard errors, clustering, bootstrap and randomized inference are discussed, time permitting. The course places strong emphasis on relating statistical methods to substantive empirical applications. Each topic is introduced with an empirical paper that uses the technique. The discussion of technical material is at an intuitive level that focuses on applications and recommendations for empirical practice. The course offers an opportunity to work on a number of extended empirical exercises that are based on published papers and original data. Students practice working with data, implementing code in Stata and conducting their own empirical analysis. These exercises also offer practice in scientific writing relevant for empirical work.

0101	Guido Kuersteiner TuTh 5:00pm - 6:15pm M 5:00pm - 6:15pm	Seats (Total: 23) TYD 0101 TYD 2102	 Discussion

ECON630 **Computational Methods in Macroeconomics**

Prerequisite: ECON602 and ECON601. Restriction: Must be in one of the following programs (Economics (Master's); Economics (Doctoral)) ; or permission of BSOS-Economics department.

Essential computational methods used in macroeconomics. There will be particular focus on approximating the solution to dynamic stochastic general equilibrium models. Methods for representative-agent and heterogeneous-agent models will be extensively studied. Econometric methods such as Generalized Method of Moments, Maximum Likelihood, Vector Autoregressions wil also be covered.

0101	Boragan Aruoba	Seats (Total: 16)
	MW 10:30am - 11:45am	TYD 2102

ECON635 **Experimental Economics**

(Perm req)

Restriction: Permission of instructor.

An introduction to the methodology of laboratory and field experiments. The course concentrates on a series of experiments to show how experiments build on one another, allowing researchers with different theoretical dispositions to narrow the range of potential disagreement.

0101	Erkut Ozbay	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TYD 1108

ECON636 **Behavioral Economics**

Prerequisite: ECON603 and ECON604; and permission of BSOS-Economics department.

An exploration of how people make decisions, questioning the concept of "perfect rationality" in the standard economic theory, providing improved models in line with the observed biases of decision makers. Focusing on decision making under risk and ambiguity, endowment effect, status quo bias, loss aversion, intertemporal choice, and selfish and pro-social preferences.

0101	Emel Filiz Ozbay	Seats (Total: 15)
	TuTh 9:30am - 10:45am	TYD 3100

ECON641 **Microeconomic Analysis**

Restriction: Must be in M.Prof.Studies: Applied Economics program; or permission of BSOS-Economics department. Credit only granted for: ECON641 or ECON506. Formerly: ECON506.

Microeconomic analysis applied to public policy problems with an emphasis on practical examples and how they illustrate microeconomic theories. Policy issues such as pollution, welfare and income distribution, market design, industry regulation, price controls, tax policy and health insurance are practical examples used to illustrate the abstract principles of microeconomics.

PCE1	Amanda Kerr	Seats (Total: 27)
	M 6:30pm - 9:15pm	TYD 2102
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

PR01	Aaron Finkle	Seats (Total: 23)	
	Meets August 28, 2023 - November 17, 2023		
	Th 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This section will be mostly in-person, with weekly in-person meetings at the noted times. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON642 **Topics in Applied Macroeconomics**

Restriction: Must be in M.Prof.Studies: Applied Economics program; or permission of BSOS-Economics department.

Focus is on applied macroeconomic models used by federal agencies to explain and predict economic behavior. Course emphasizes macroeconomic data: NIPA accounts, GDP, construction and application of CPI, labor force data and economic indicators. Students will also study a selected set of current macroeconomic topics including models of economic growth, economic fluctuations, monetary policy, inflation and financial markets.

PCE1	Colin Caines	Seats (Total: 27)	
	Tu 6:30pm - 9:15pm	TYD 2102	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

ECON643 **Empirical Analysis I: Foundations of Empirical Research**

Credit only granted for: ECON643 or ECON521. Formerly: ECON521.

Fundamental aspects of data management and interpretation emphasizing sampling, descriptive statistics, index numbers and construction of aggregated variables. Students will learn probability theory, confidence intervals, hypothesis testing and regression analysis using the EXCEL spreadsheet program and STATA statistical software.

PCE1	John Straub	Seats (Total: 27)	
	W 6:30pm - 9:15pm	TYD 2102	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

PR01	Mohammad Danesh Jafari	Seats (Total: 23)	
	Meets August 28, 2023 - November 17, 2023		
	M 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This section will be mostly in-person, with weekly in-person meetings at the noted times. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON645 **Empirical Analysis III: Econometric Modeling and Forecasting**

Prerequisite: ECON644. Credit only granted for: ECON645 or ECON523. Formerly: ECON523.

Study of empirical techniques that are particularly relevant to the analysis of microeconomic models. Emphasis is on advanced panel data methods, time series regressions, instrumental variables, limited dependent variables, and sample selection corrections.

PCE1	Ye Zhang	Seats (Total: 26)	
	W 6:30pm - 9:15pm	TYD 2109	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		
PR01	Samuel Rowe	Seats (Total: 23)	
	Meets August 28, 2023 - November 17, 2023		
	M 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This section will be mostly in-person, with weekly in-person meetings at the noted times. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON652 **Public Economics I**

Prerequisite: ECON604 and ECON624.

The foundations of public economics, taxation, inequality, and behavioral public economics are reviewed. Major topics include welfare economics, tax incidence, behavioral responses to tax incentives and the efficiency cost of taxation, optimal taxation, income and wealth inequality, optimal tax systems and tax evasion, capital taxation and business income taxes, and taxation and behavioral economics. The course material is aimed to give students an understanding of both the foundations and methods of modern public economics, and important recent advances in our understanding of public economics. This is the first course in the two-part Ph.D. sequence in public economics.

0101	Daniel Reck	Seats (Total: 20)
	MW 2:00pm - 3:15pm	LEF 1220

ECON664 **Empirical Studies in Industrial Organization**

Prerequisite: ECON603, ECON604, and ECON624. Credit only granted for: ECON664 or ECON698J. Formerly: ECON698J.

Introduces students to the recent empirical literature of industrial organization. It consists of four themes: pricing and contracting; cartels, collusion and merger reviews; demand estimation; and information economics.

0101	Ginger Jin	Seats (Total: 20)
	MW 11:00am - 12:15pm	TYD 1132

ECON670 **Financial Economics**

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

The course applies microeconomic theory and applied econometric techniques to the study of financial institutions and markets for financial assets. Students will learn how economists model and estimate the value of financial assets. The economic and empirical models are of interest to public policy makers and private wealth managers. Specific topics can include financial intermediation, the regulation of financial institutions, risk management, portfolio theory, the capital asset pricing model and the efficient markets hypothesis.

PR01	Christian Krestel	Seats (Total: 23)	
	Meets August 28, 2023 - November 17, 2023		
	Tu 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion

Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This section will be mostly in-person, with weekly in-person meetings at the noted times. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.

ECON674 **Economic Analysis of Law**

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON644.

A study of the application of economics to law with a focus on game theory, strategic behavior and public policy.

PR01	Yong Paek	Seats (Total: 23)	
	Meets August 28, 2023 - November 17, 2023		
	Th 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This section will be mostly in-person, with weekly in-person meetings at the noted times. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON675 **Environmental Economics**

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON645.

A study of the nature of environmental regulation focusing on U.S. environmental policies and policy debates.

PCE1	Hong Kim	Seats (Total: 25)	
	M 6:30pm - 9:15pm	TYD 2109	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

ECON676 **Economic Development**

Prerequisite: ECON641; and ECON642; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

Analysis of economic development. The course will focus on the consequences of poverty and poor institutions for the behavior and welfare of individuals, households, firms and the aggregate economy in developing countries. Theoretical models and empirical evidence will be used to understand the intended and unintended consequences of policies designed to enhance economic development.

PCE1	Steven Payson	Seats (Total: 25)	
	M 6:30pm - 9:15pm	TYD 2106	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

ECON683 **International Macroeconomics and Finance**

Prerequisite: ECON641 and ECON642; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

Economic analysis of international macroeconomic issues and policy. Topics can include the study of exchange rates, balance of payments, international financial markets, international business cycles, contagion, and the roles played by international economic institutions.

PCE1	Pablo Cuba Borda	Seats (Total: 26)	
	Tu 6:30pm - 9:15pm	TYD 2109	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		
PR01	Thomas Rumbaugh	Seats (Total: 23)	
	Meets August 28, 2023 - November 17, 2023		
	W 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This section will be mostly in-person, with weekly in-person meetings at the noted times. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON687 **Economics Applications of R Programming**

Prerequisite: ECON645. Restriction: Must be in Applied Economics Master of Science program; or permission of the program director.

Builds on the data analysis and econometric skills learned in the Empirical analysis sequence of ECON 643, 644, and 645. The STATA skills acquired in that sequence, such as basic data manipulation and econometric estimation, will be extended to the R programming language. The fundamentals of more advanced scientific programming--objects, data structures, loops, functions, simulation, parallel computing--will be introduced with applications to economics and the social sciences. Additional emphasis is placed on good coding practices and tools for version control and collaboration such as Git and R Markdown.

PCE1	Christian Krestel Th 6:30pm - 9:15pm	Seats (Total: 26) TYD 2102
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	
PR01	Christopher Adams **Meets August 28, 2023 - November 17, 2023** Tu 6:45pm - 9:30pm Contact instructor or department for details.	Seats (Total: 23) Location: TBA
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This section will be mostly in-person, with weekly in-person meetings at the noted times. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.	

ECON701 **Advanced Macroeconomics I**

Prerequisite: ECON602 and ECON601.

Recent developments in macroeconomics with an emphasis on topics and techniques useful for conducting research in macroeconomics. Topics include advanced treatment of fiscal and monetary policy issues; the role of imperfect competition; real, sectoral and nominal business cycle models.

0101	John Haltiwanger MW 2:00pm - 3:15pm	Seats (Total: 20) TYD 4103

ECON703 **Advanced Microeconomics I**

Prerequisite: ECON604 and ECON603.

A formal treatment of game theory and its microeconomic applications is presented. Equilibrium concepts for static and dynamic games, and games with complete and incomplete information are studied. Topics also discussed: the relation between games in strategic form and games in extensive form, equilibrium refinement, Bayesian games, multi-dimensional mechanism design, dominant strategy and Bayesian implementation, Nash-in-Nash bargaining solutions.

0101	Daniel Vincent TuTh 12:30pm - 1:45pm	Seats (Total: 20) TYD 1132

ECON708 **Advanced Topics in Applied and Theoretical Microeconomics**

(Perm req)

Read, discuss, and analyze current topics in microeconomics, including public economics, environmental economics, labor economics, industrial economics, microeconomic theory, public choice and international trade. Specific topics covered will change from semester to semester depending on the students' and faculty's interests. Intended primarily for students beginning thesis research in economics.

0601	Sergio Urzua	Seats (Total: 45)
	MW 12:30pm - 1:45pm	TYD 0101

ECON709 **Advanced Topics in Applied and Theoretical Macroeconomics**

(Perm req)

Read, discuss, and analyze current topics in macroeconomics, including asset pricing models, models of economic growth, investment, and the labor market. Specific topics covered will change from semester to semester depending on the students' and faculty's interests. Intended primarily for students beginning thesis research in economics.

0101	John Shea	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	TYD 0101

ECON721 **Econometrics III**

Prerequisite: ECON624; or permission of BSOS-Economics department.

Oriented towards macro-econometric methods. Topics covered will be selected from the following: Further discussion of topics covered in ECON624, non-stationary time series models (models with deterministic trends, unit roots, co-integration, error correction models, vector autoregressive models), econometric models of conditional heteroskedasticity (ARCH and GARCH models), Bayesian econometrics and methods for Bayesian computation, large-dimensional factor analysis, models of changes in regime, and methods for time series forecasting.

0101	John Chao	Seats (Total: 20)
	TuTh 5:00pm - 6:15pm	TYD 2102

ECON741 **Advanced International Economics I**

Prerequisite: ECON601; or permission of BSOS-Economics department.

International Business Cycles; Exchange Rate Determination; Imperfect Financial Markets; Deviations from Full Information Rational Expectations; Monetary and Exchange Rate Policy

0101	Pierre De Leo	Seats (Total: 16)
	TuTh 2:00pm - 3:15pm	TYD 3100

ECON744 **Advanced Topics in International Economics**

Prerequisite: ECON601 and ECON602. Credit only granted for: ECON698M or ECON744. Formerly: ECON698M.

Focuses on key topics in international macroeconomics. We will cover classic and recent papers on business cycles, exchange rates, capital flows, monetary and fiscal policy, sovereign debt, default, and currency denomination. The course will be orientated towards students initiating research in the field.

0101	Pablo Ottonello	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	TYD 1108

ECON754 **Theory of Political Economy**

Prerequisite: ECON603 and ECON604; or permission of BSOS-Economics department.

Basic Electoral Models of Aggregating Preferences and Information. Political Participation and Voter Turnout. Pivotal and Ethical Voters. Opportunistic versus Policy-Motivated Candidates. Credibility of Policy. Political Agency and Accountability - Moral Hazard and Selection. Legislatures - Legislative Bargaining and Legislative Dynamics. Special Interest Politics. Campaign Financing. Political Polarization and Ambiguity. Behavioral Political Economy. Populism and Authoritarianism. Political Parties.

0101	Allan Drazen	Seats (Total: 20)
	MW 11:00am - 12:15pm	TYD 2111

ECON771 **Advanced Labor Economics: Theory and Evidence**

(Perm req)

Prerequisite: ECON603 and ECON624; or permission of BSOS-Economics department. Restriction: Must be in the Economics Doctoral program.

Provides students the theoretical background and econometric tools to engage and conduct research in labor economics. The course highlights the importance of a good balance between theory and solid empirical work. The topics include human capital, empirical earning functions, labor demand, incentive, discrimination, minimum wage, labor supply, tasks and skills, and inequality. In addition, it goes over essential topics in applied economics, including selection bias, instrumental variables, structural vs. reduced-form analysis, dynamic discrete choice models, and unobserved heterogeneity. During the term, students work with different data sets.

0101	Sergio Urzua	Seats (Total: 10)
	MW 9:00am - 10:15am	TYD 0111

ECON799 **Master's Thesis Research**
Contact department for information to register for this course.

ECON808 **Workshop on Macroeconomics, International Macroeconomics and International Finance; Workshop in Applied Economics**

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0101	Boragan Aruoba	Seats (Total: 40)
	W 3:30pm - 5:30pm	TYD 0101

ECON828 **Workshop in Econometrics**

Current research in econometrics. Topics drawn from theoretical and applied econometrics. Special topics include: maximum likelihood and generalized method of moments estimation of linear and non-linear models, analysis of stationary and non-stationary time series, cross section time series estimation, spatial estimation mehtods, Bayesian methods, semi-and non-parametic methods, rational expectations models, numerical methods, and various applications.

0101	John Chao M 3:30pm - 6:00pm	Seats (Total: 20) Location: TBA

ECON848 **Workshop in International Trade, Institutional Economics and Political Economy**

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0101	Peter Murrell M 3:30pm - 5:30pm	Seats (Total: 20) Location: TBA

ECON868 **Workshop in Industrial Organization, Microeconomic Theory and Behavioral and Experimental Economics**

Workshops designed to provide a structured environment for our faculty and graduate students to meet regularly to discuss and present their research ideas.

0101	Yusuf Masatlioglu Tu 3:30pm - 5:30pm	Seats (Total: 40) TWS 0236

ECON878 **Workshop in Development, Labor and Public Economics**

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0101	Jessica Goldberg Th 3:30pm - 5:30pm	Seats (Total: 40) SQH 1101

ECON898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

ECON899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

EDCP Education Counseling and Personnel Services — Fall 2023

EDCP108C **College and Career Advancement: Concepts and Skills; Career Clarification - Choosing Your Major and Career**

Knowledge and skills designed to enhance college as a learning experience or preparation for life.

Restricted to students with 60 credits or less. Figuring out what to study and work on is a hard problem, and one that you will be trying to solve multiple times in your life as you grow and evolve. The "Choosing Your Major and Career" course is a guided self-discovery experience where you learn more about yourself, the fields you are interested in, and the supporting tools and frameworks that you can come back to throughout your life when evaluating your professional goals. During the semester, you will engage with course content, work with your classmates, and complete projects and reflections to gain a deeper understanding of what drives you, what you are good at, and which majors and careers align with those interests and skills. You will also participate in three one-on-one coaching sessions. This course is one of the offerings of the Intentional Life Lab.

0101	Sarah Wolek, Jessica Roffe W 1:00pm - 1:50pm	Seats (Total: 20) EDU 3236	
FCW1	Sarah Wolek Class time/details on ELMs Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ONLINE ONLINE	 Discussion

EDCP108I **College and Career Advancement: Concepts and Skills; Academic Transitions to Internships**

Knowledge and skills designed to enhance college as a learning experience or preparation for life.

Restricted to students with less than 105 cumulative credits. Recommended for students who have never had an internship and are actively searching for one. Students participating in this course will engage in the full experience of searching for an internship Course registration is closed to graduating seniors.

0101	Marisha Addison **Meets August 28, 2023 - October 17, 2023** Class time/details on ELMs	Seats (Total: 40) ONLINE
0301	Marisha Addison **Meets October 23, 2023 - December 11, 2023** Class time/details on ELMs	Seats (Total: 40) ONLINE
0401	Jenny Sak **Meets October 23, 2023 - December 11, 2023** Class time/details on ELMs	Seats (Total: 40) ONLINE

0501	Veronica Perrigan, Brianne Gridley, Lizzy Solovey **Meets October 23, 2023 - December 11, 2023** Class time/details on ELMs *Restricted to College of Engineering students only.*	Seats (Total: 30) ONLINE
0601	Ronda Ansted, Erin Moody **Meets October 23, 2023 - December 11, 2023** Class time/details on ELMs *Restricted to BSOS-Economics majors only.*	Seats (Total: 25) ONLINE
0701	Olivia Rosenburg **Meets August 28, 2023 - October 17, 2023** Class time/details on ELMs *This section is restricted to CMNS students only.*	Seats (Total: 30) ONLINE
0801	Julie Randolph **Meets August 28, 2023 - October 17, 2023** Class time/details on ELMs *Restricted to CIVICUS students only.*	Seats (Total: 30) ONLINE
0901	Caroline Bodnar **Meets August 28, 2023 - October 17, 2023** Class time/details on ELMs *Restricted to College of Arts & Humanities students only.*	Seats (Total: 30) ONLINE

EDCP210 **Peer Counseling Skills and Mental Health Advocacy**

Restriction: Must not have completed EDCP310; and must not have completed PSYC433. Credit only granted for: EDCP210, EDCP310, or PSYC433.

Introduction to core helping skills in peer counseling settings and three predominant theoretical approaches used in the counseling field (humanistic, psychodynamic, cognitive-behavioral). The course also explores mental health stigma and advocacy. Students will build an understanding of the practical application of underlying principles and theory in counseling and the helping professions, while exploring their own, and societal, biases, assumptions, and attitudes toward mental health.

0101	Laura Kelly MW 4:30pm - 5:45pm	Seats (Total: 18) SQH 1123
0201	Bridget Moran TuTh 2:00pm - 3:15pm	Seats (Total: 18) EDU 3233
0301	Brianna Ladd MW 10:00am - 11:15am	Seats (Total: 18) EDU 2101
0401	Romy Stancofski TuTh 11:00am - 12:15pm	Seats (Total: 18) EDU 3233
0501	Isabella Stoto MW 11:00am - 12:15pm	Seats (Total: 18) HBK 0108

EDCP230 **The Science and Practice of Happiness and Psychological Well-Being**

An introduction to theory and research on positive psychology, subjective well-being, and the psychology of happiness. This will include examination of hedonic and eudaimonic models of well-being and sociocultural understandings of happiness, together with how it relates to health, relationships, money, religion, work, and social media. Students will also explore common misconceptions and myths about happiness and well-being and will engage in a variety of activities designed to deepen their understanding of happiness in their own lives and broader societal trends related to well-being.

0101	Stephanie Cerrato TuTh 10:00am - 11:15am	Seats (Total: 20) EDU 3236
0201	Anjali Sheth TuTh 11:00am - 12:15pm	Seats (Total: 18) EGR 3111
0301	Daniel Moore MW 4:00pm - 5:15pm	Seats (Total: 20) KNI 1206
0401	Rabia Brown TuTh 11:30am - 12:45pm	Seats (Total: 20) LEF 1220
0501	Manuel Teran Hernandez WF 10:00am - 11:15am	Seats (Total: 20) EGR 0135
0601	Amber Pasha TuTh 9:00am - 10:15am	Seats (Total: 20) SQH 1121

EDCP298 **Special Problems in Counseling and Personnel Services**

Individual instruction in special problems related to counseling, student leadership, and college student development.

Contact department for information to register for this course.

EDCP298Z **Special Problems in Counseling and Personnel Services; British Life and Society in a Cross-Cultural Context**

Individual instruction in special problems related to counseling, student leadership, and college student development.

Contact department for information to register for this course.

EDCP386 **Experiential Learning**

(Perm req)

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department; and sophomore standing or higher.

Special EDCP form required.

Contact department for information to register for this course.

EDCP489 **Field Experiences in Counseling and Personnel Services**

(Perm req)

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDCP498 **Special Problems in Counseling and Personnel Services**

(Perm req)

Available only to major students who have formal plans for individual study of approved problems.

Contact department for information to register for this course.

EDCP498T **Special Problems in Counseling and Personnel Services; Contextual Leadership-Teaching Assistant**

(Perm req)

Available only to major students who have formal plans for individual study of approved problems.

0101	Tori Shay	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

EDCP610 **Professional Orientation**

Survey of knowledge base and practices in counseling and personnel services specializations, professional ethics, credentialling relevant legislation, current issues.

For Student Affairs students only.

0101	Michelle Espino Th 1:00pm - 3:45pm *Restriction: Must be a student in Student Affairs.*	Seats (Total: 15) EGR 1110
0201	Natasha Mitchell M 4:15pm - 7:00pm *Limited to School Counseling Students.*	Seats (Total: 20) EDU 1315

EDCP614 **Counseling Skills: Introduction to Practicum**

Corequisite: EDCP616.

Development and utilization of counseling skills.

0101	Jorinna Tran W 1:00pm - 3:50pm	Seats (Total: 20) EDU 2101

EDCP615 **Counseling I: Appraisal**

Corequisite: EDCP618. Restriction: Must be in a major within EDUC-Counseling, Higher Education and Special Education department.

Collection and interpretation of appraisal data, synthesis of data through case study procedures. Development of interview skills.

0101	Jorinna Tran W 4:15pm - 7:00pm	Seats (Total: 11) EDU 3236

EDCP616 **Counseling II: Theory and Practice**

Corequisite: EDCP614.

Counseling theories and the practices which stem from such theories.

For EDCP majors only.

0101	Jessica McKechnie Th 4:15pm - 7:00pm *Limited to Students in the Masters Program.*	Seats (Total: 22) EDU 2101

EDCP619B **Practicum in Counseling**

Sequence of supervised counseling experiences of increasing complexity. Limited to eight applicants in advance. Two hours class plus laboratory.

0101	Carlton Green	Seats (Total: 4)
	Tu 1:00pm - 3:45pm Contact instructor or department for details.	Location: TBA
	Restricted to second-year Student Affairs masters students approved for Counseling Practicum participation.	

EDCP622 **Human Development in the Counseling Context**

Credit only granted for: EDCP789X or EDCP622. Formerly: EDCP789X.

An examination of the development of individuals over the lifespan. A focus on human development theories and the ways in which those theories are utilized within the counseling process to promote optimal development of individuals and families across the lifespan.

0101	Sylvia Huntley	Seats (Total: 20)
	W 4:15pm - 7:00pm	HJP 2217

EDCP635 **School Consultation I**

Restriction: Must be in the School Counseling program; or must be in the School Psychology program; or permission of instructor.

Theory and practice of consultation services in the school setting. Understanding of school culture. Introduction to problem solving model of case consultation for assessment and remediation of learning and behavior problems in the classroom. Practicum experience.

0101	Katie Burkhouse	Seats (Total: 10)
	Tu 4:30pm - 7:15pm	Location: TBA

EDCP640 **School Psychology Seminar: Overview of the Specialty**

Restriction: Must be in the School Psychology program; or permission of instructor.

Overviews the specialty of school psychology, including history of the specialty, roles and functions of school psychologists, and current professional issues related to the specialty.

0101	Chunyan Yang	Seats (Total: 10)
	Tu 12:45pm - 3:30pm	JMZ 1123

EDCP641 **School Psychology Seminar: Professional Ethics**

Restriction: Must be in the School Psychology program; or permission of instructor.

Overviews ethical issues in the specialty of school psychology.

0101	Chunyan Yang	Seats (Total: 10)
	Contact instructor or department for details.	

EDCP652 **Research in Counseling**

Restriction: Must be in the School Counseling program. Credit only granted for: EDCP652 or EDCP789Y. Formerly: EDCP789Y.

An exploration of basic and applied research, program evaluation, and associated measurement and evaluation skills crucial for professional school counselors.

0101	Natalie Gaudette	Seats (Total: 15)
	Tu 4:15pm - 7:00pm	JMZ 1120

EDCP682 **Counseling Psychology Didactic Practicum in Group Interventions**

Prerequisite: For Counseling Psychology majors only. Cross-listed with: PSYC682. Formerly: EDCP718.

In depth examination of theories and techniques of group interventions; supervised experience in group counseling.

0101	Pepper Phillips	Seats (Total: 5)
	W 2:00pm - 5:00pm	Location: TBA

EDCP685 **Counseling Psychology Didactic Practicum in Counseling Supervision**

Restriction: Must be in the Counseling Psychology program. Cross-listed with: PSYC685. Formerly: EDCP745.

In depth examinatin of theories and techniques of counseling supervision, supervised experience in the process of supervising counselors.

0101	Delida Sanchez	Seats (Total: 10)
	Tu 11:00am - 1:45pm	SPH 0301

EDCP695 **Ethical and Professional Issues in Counseling Psychology**

Prerequisite: Must be in the Counseling Psychology program. Also offered as: PSYC695. Credit only granted for: EDCP669, EDCP688, EDCP695, PSYC688, or PSYC695. Formerly: EDCP669 and EDCP688.

Exploration of ethical and professional issues in Counseling Psychology.

0101	Roger Worthington	Seats (Total: 10)
	W 1:00pm - 3:45pm	WDS 1131

EDCP697 **Multicultural Issues in Counseling Psychology**

Prerequisite: Only open to Counseling Psychology majors. Credit only granted for: EDCP697, EDCP699, or PSYC697. Formerly: EDCP699.

Exploration of knowledge, attitudes and skills for providing counseling and psychological services to culturally diverse populations.

0101	Richard Shin	Seats (Total: 15)	
	W 2:00pm - 5:00pm	LEF 1222	

EDCP698 **Advanced Didactic Practicum in Counseling Psychology**

In depth examination of approaches to or theories abouth intervention, and supervised experience in the application of those approaches or theories. Each practicum focuses on a particular approach, e.g., psychodynamic, cognitive-behavioral, cross-cultural.

0101	Roger Worthington	Seats (Total: 10)	
	Th 3:00pm - 6:00pm	Location: TBA	
	Limited to Counseling Psychology Students		

EDCP700 **Theories and Strategies of Counseling Psychology**

Prerequisite: For Counseling Psychology majors only. Cross-listed with: PSYC700. Formerly: EDCP789J.

Introduction to the professional field, examination of pertinent scientific and philosophical backgrounds, and survey of the major theories, principles, and training models in counseling. Correlated laboratory analogue experiences in dydactic and group interrelationships.

0101	Dennis Kivlighan	Seats (Total: 10)	
	W 9:00am - 12:00pm	BPS 2150G	
	Tu 2:00pm - 5:00pm	BPS 2150H	Lab

EDCP738 **Practicum in Child Assessment**

Administration of complete test batteries to children; supervision of initial interviews; test administration and scoring; interpretation and synthesis of test battery and interview material; the psychological report; verbal interpretation of test results; and recommendations. Taken initially with EDCP 633; repeated with EDCP 634 in the subsequent semester.

0101	Megan Vaganek	Seats (Total: 7)	
	W 5:45pm - 8:45pm	Location: TBA	

EDCP741 **Multicultural Practice in Student Affairs: Self, Education, and Society**

Prerequisite: EDCP771. Credit only granted for: EDCP741 or EDCP789Z. Formerly: EDCP789Z.

Develop knowledge and skills in the area of multicultural practice in student affairs through the examination of oppression, power, and privilege and how these dynamics impact individuals, educational institutions, and societies.

0101	Christopher Travers	Seats (Total: 20)	
	W 4:30pm - 7:15pm	JMZ 0118	

EDCP743 **Developmental Psychopathology**

Restriction: Must be in Counseling and Personnel Services (Doctoral) program; or permission of instructor. Credit only granted for: EDCP789Q or EDCP743. Formerly: EDCP789Q.

Explore psychopathology from a developmental perspective and with an emphasis on affective bases of behavior

0101	Hedwig Teglasi W 9:30am - 12:15pm	Seats (Total: 10) SQH 1125

EDCP746 **Clinical Supervision of Pupil Personnel Services**

(Perm req)

Prerequisite: Advanced Doctoral Students Only. Restriction: Permission of instructor.

Supervision of role of psychologists and counselors in school settings; applied skills in supervision of services.

0101	Chunyan Yang Tu 4:00pm - 6:45pm	Seats (Total: 10) JMZ 0208

EDCP772 **Research in Student Affairs**

Prerequisite: EDCP656; or permission of instructor. Restriction: Must be in the College Student Personnel program.

Research designs and approaches to research in student development and higher education. Development of research for research competency or dissertation proposal.

0101	Julie Park, Lindsey Templeton Th 12:00pm - 2:45pm	Seats (Total: 10) Location: TBA

EDCP774 **Advanced Seminar in Theories of College Student Development**

Prerequisite: EDCP771; or students who have taken courses with comparable content may contact the department.

An opportunity for in-depth study, dialogue, and reflection about theoretical frameworks for understanding the development of college students. Specific attention is given to enhancing knowledge and understanding of the development of students when social identities and their intersections are considered.

0101	Christopher Travers Tu 2:00pm - 4:45pm Class time/details on ELMs	Seats (Total: 10) WDS 1127 ONLINE

EDCP789R **Advanced Topics in Counseling and Personnel Services; College Teaching Seminar**

(Perm req)

0101	Michelle Espino Contact instructor or department for details.	Seats (Total: 5)
5101	Candace Moore Contact instructor or department for details.	Seats (Total: 2)

EDCP798 **Special Problems in Counseling and Personnel Services**

(Perm req)

Master's AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisers may register for credit under this number.

Contact department for information to register for this course.

EDCP798A **Special Problems in Counseling and Personnel Services; Research Design and Proposal Writing Seminar**

Master's AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisers may register for credit under this number.

0101	Jenny Sak W 1:00pm - 3:45pm	Seats (Total: 10) JMZ 1123

EDCP799 **Master's Thesis Research**

Registration required to the extent of six hours for Master's thesis.

Contact department for information to register for this course.

EDCP870 **Professional Issues Seminar**

Credit only granted for: EDCP656 or EDCP870. Formerly: EDCP656.

Examination of issues that bear on professional issues such as ethics, inter-professional relationships and research.

For Student Affairs Doctoral Students Only.

0101	Candace Moore W 4:30pm - 7:15pm Class time/details on ELMs	Seats (Total: 10) WDS 1127 ONLINE

EDCP879 **Internship in School Counseling**

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Jessica McKechnie Th 7:00pm - 9:45pm	Seats (Total: 15) EDU 3236

EDCP888 **Apprenticeship in Counseling and Personnel Services**

(Perm req)

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

EDCP888A **Apprenticeship in Counseling and Personnel Services; College Student Personnel**

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Marsha Guenzler-Stevens, Kristan Skendall Contact instructor or department for details.	Seats (Total: 10)

EDCP888C **Apprenticeship in Counseling and Personnel Services; School Psychology**

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Annie Goldthrite W 5:00pm - 8:00pm	Seats (Total: 15) EDU 2101
0201	Hedwig Teglasi W 2:00pm - 4:45pm	Seats (Total: 15) Location: TBA
3901	Cixin Wang Contact instructor or department for details.	Seats (Total: 10)

EDCP889 **Internship in Counseling and Personnel Services; Internship in Counseling and Personnel Services**

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDCP889C **Internship in Counseling and Personnel Services**

(Perm req)

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

0101	Jioni Lewis Contact instructor or department for details.	Seats (Total: 5)

EDCP898 **Pre-Candidacy Research**
Contact department for information to register for this course.

EDCP899 **Doctoral Dissertation Research**

(Perm req)

Registration required to the extent of 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

EDHD Education, Human Development Fall 2023

EDHD200 **Paradigms and Perspectives in Human Development**

Restriction: Must have 45 or fewer credits; or must be in the Human Development program or Human Development minor.

An introduction to the paradigms and perspectives that guide the study of human development across the lifespan in cognitive, social, physical and emotional domains. Topics of study include overlying principles, concepts, assumptions, theoretical frameworks, and research methods that influence ways in which development is conceptualized. The course is designed to provide insight into major questions of the day in human development and how these prevailing perspectives have evolved over time. This course will also help students understand how knowledge of theory and research is translated into practice in a variety of professional settings.

0101	Jannah Fusenig Th 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 40) TWS 0201 ONLINE
0201	Rachel Romeo MW 2:00pm - 3:15pm	Seats (Total: 40) EDU 1121
0301	Megan Hurley Th 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 40) ONLINE ONLINE

EDHD201 **Learning How to Learn**

Immerses students in the theoretical and empirical study of learning by engaging them in orchestrated experiences and activities drawn directly from the disciplinary research. Students achieve deep understanding of their own learning, as well as the means of enhancing that learning both in school and out-of-school contexts.

0101	Patricia Alexander MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 30) ESJ 0215 ESJ B0322	 Discussion
0102	Patricia Alexander MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 30) ESJ 0215 ESJ B0322	 Discussion
0201	Alina Maki TuTh 9:30am - 10:45am	Seats (Total: 30) TYD 1114	
FC01	Nancy Gans TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) SQH 1105	

EDHD210 **Foundations of Early Childhood Education**

(Perm req)

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department.

Students explore historical and current research in early childhood education, primary models of curriculum and pedagogy in the field, and the relationship between critical aspects of young children's development and the creation of inclusive learning opportunities for all children, including children at risk. The concept of developmentally appropriate practice and its application across different developmental levels and early childhood classrooms will be introduced and connected with discussion in EDHD220 and EDSP211. Students examine issues in developing and implementing high quality early childhood education experiences for young children with and without disabilities, including the influence of family, culture, and community, the needs of children at risk (e.g., poverty, immigrant status, English Language Learners), and the role of assessment in early learning.

0101	Jennifer Smallwood-Holmes Th 1:00pm - 3:45pm	Seats (Total: 25) EDU 1107	

EDHD220 **Exploring Early Childhood General and Special Education**

(Perm req)

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department.

Students who are considering a career in education will consider information about the teaching profession. Students reflect on their personal strengths, identify areas of growth, and examine their predisposition to work with young children with and without disabilities. They will discuss the nature of teaching, the moral and philosophic underpinnings that influenced their decision to enter into the teaching professions, as well as the roles and responsibilities of teachers and the characteristics and qualities for effective teachers (teaching styles and teacher's primary role in the classroom).

0101	Randi Albertsen W 2:00pm - 4:00pm M 8:00am - 12:00pm	Seats (Total: 6) PHY 1219 Location: TBA	Lab
0102	Randi Albertsen W 2:00pm - 4:00pm Tu 8:00am - 12:00pm	Seats (Total: 7) PHY 1219 Location: TBA	Lab
0103	Randi Albertsen W 2:00pm - 4:00pm Th 8:00am - 12:00pm	Seats (Total: 6) PHY 1219 Location: TBA	Lab
0104	Randi Albertsen W 2:00pm - 4:00pm F 8:00am - 12:00pm	Seats (Total: 6) PHY 1219 Location: TBA	Lab

EDHD221 **Aggression and Violence in Everyday Life: Can Violence Be Prevented?**

History of aggression and violence in the world and in the United States. Examines the extent to which various forms are prevalent today and scientifically supported prevention strategies. Methods of studying aggression are reviewed, as are theories and methods of preventing aggression and violence.

0101	Jennie Lee-Kim TuTh 11:00am - 12:15pm	Seats (Total: 50) ESJ 2309

EDHD228 **Research Experiences in Human Development**

(Perm req)

Provides students with hands-on participation in faculty-supervised laboratory research activities in the Department of Human Development & Quantitative Methodology. Students will learn about the purpose of scientific research and engage in activities that advance their knowledge and skills with regard to its ethical practice.

Contact department for information to register for this course.

EDHD230 **Human Development and Societal Institutions**

Development of the individual in the context of relationships with the formal and informal institutions of society. An examination of various aspects of development from the broad perspective of the social sciences.

0201	Joshua Jaffe MW 12:30pm - 1:45pm	Seats (Total: 40) EDU 1121

FC01	Joshua Jaffe	Seats (Total: 20)
	MW 3:00pm - 4:15pm	SQH 1123
	Restricted to students in Freshmen Connection	

EDHD306 **Research Methods in Human Development**

Addresses the scientific concepts and principles central to the study of human behavior and development. Students will learn about basic research methods in studying human behavior in developmental context and will participate in experiential activities, such as conducting observations and collecting self-report data. Major themes: goals of developmental research, fundamental research designs, types of measurement, elements of good scientific writing, and ethical issues in the study of human development.

0101	Eric Schoute	Seats (Total: 40)
	W 9:30am - 10:45am Class time/details on ELMs	EDU 1121 ONLINE
	Restricted to students in the Human Development major or minor programs	
0201	Doug Lombardi	Seats (Total: 80)
	TuTh 2:00pm - 3:15pm	IRB 1116

EDHD314 **Reading in the Early Childhood Classroom**

Prerequisite: EDHD210, EDHD220, and EDSP211. Corequisite: EDHD425; and corequisite: EDHD419 or EDSP420. Restriction: Must be enrolled in Professional Early Childhood/Early Childhood Special Education Program; and minimum cumulative GPA of 2.75.

Early childhood students introduced to current research/methods on teaching language arts. Focus on development of linguistic and cognitive processes in emergent literacy and beginning reading and writing. Application to models for the instruction and assessment of reading/writing in preschool-aged children. Also includes material on classroom-based interventions for young children at risk of reading failure due to learning difficulties. Includes Field Experiences.

Restricted to major code 0822P.

0101	Donald Bolger	Seats (Total: 35)
	Th 1:00pm - 3:00pm Contact instructor or department for details.	EDU 1121

EDHD319 **Selected Topics in Human Development**

Selected topics in human development in relation to contemporary culture.

Contact department for information to register for this course.

EDHD320 **Human Development Through the Life Span**

Central concepts related to parameters of human development, individual and social, which arise throughout the life span. Continuity and change within the developing individual.

0101	Rachel Ghosh Th 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 40) TWS 1107 ONLINE
0201	Rachel Ghosh Th 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 40) EDU 2119 ONLINE
0301	Olga Walker Tu 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 80) SQH 1120 ONLINE
0401	Min Wang W 12:30pm - 3:15pm	Seats (Total: 40) SQH 1101
0501	Jennie Lee-Kim Tu 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 40) EDU 2119 ONLINE

EDHD322 **The Young Child as Mathematician**

Prerequisite: EDSP423, EDHD431, and EDSP315; and track 1: Must have completed EDSP 430, EDSP 433; OR Track 2: Must have completed EDHD415, EDHD 424. Corequisite: EDHD323, EDSP321, EDSP417, EDHD441, EDHD442, EDHD443, and EDHD444. Restriction: Must be in the Professional Early Childhood/Early Childhood Special Education program; and senior standing or higher; and minimum cumulative GPA of 2.75.

Provides a theoretical and instructional framework for mathematics instruction in early childhood classrooms. Development of understanding of early childhood mathematics that emphasizes how and in what environment young children learn mathematics. Current thinking about both content and instructional strategies for mathematics curriculum, including identification and review of standards and expectations for learning outcomes for all children. Assessment strategies for evaluating all children will be addressed. Includes Phase 1 Field Experience.

Restricted to major code 0822P.

0101	Lisa Davis W 2:00pm - 4:00pm Contact instructor or department for details.	Seats (Total: 35) EDU 2121

EDHD323 **Children Study their World**

Prerequisite: EDSP423, EDHD431, and EDSP315; and track 1: Must have completed EDSP430, EDSP433; or Track 2: Must have completed EDHD415, EDHD424. Corequisite: EDHD322, EDSP417, EDHD441, EDHD443, EDHD442, EDHD444, and EDSP321. Restriction: Must be in the Professional Early Childhood/Early Childhood Special Education program; and senior standing or higher; and minimum cumulative GPA of 2.75.

Provides theoretical and instructional framework for social studies instruction in inclusive early childhood classrooms. Course will reflect current thinking about content and instructional strategies for social studies curriculum; identification and review of standards/expectations for learning outcomes for all children; assessment strategies for evaluating of social studies objectives; use of data driven instruction to support all children; observation of children's understanding of their social world in field placements; opportunities to explore these understandings through interviews with children and the implementation of activities. Includes Phase 1 Field Experience.

Restricted to major code 0822P.

0101	Lisa Davis	Seats (Total: 35)
	W 11:00am - 1:00pm Contact instructor or department for details.	EDU 3315

EDHD386 **Experiential Learning**

(Perm req)

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department; and junior standing or higher.

Contact department for information to register for this course.

EDHD390 **Career Paths and Internship Preparation in Human Development**

Restriction: Must be in the Human Development major.

Prepares degree candidates in Human Development for career paths in the field including initial job seeking skills, knowledge necessary for entry into various professions and preparation for the program internship requirement

0101	Olga Walker	Seats (Total: 30)
	Tu 2:00pm - 2:50pm Class time/details on ELMs	SQH 1103 ONLINE
	Restricted to students in the Human Development major.	

EDHD402 **Social Development**

Recommended: EDHD411.

Social Development. Critical concepts and ideas of the study of child and adolescent social development. Focus on changes in interpersonal relationships, emotions, achievement-related behavior and competence, and functioning within the broader social context.

0101	Olga Walker Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 40) EDU 2119 ONLINE
	Restricted to students in the Human Development major or minor programs.	

EDHD411 **Child Growth and Development**

Theoretical approaches to and empirical studies of physical, psychological and social development from conception to puberty. Implications for home, school and community.

0201	Christina Edmonds MW 11:00am - 12:15pm	Seats (Total: 40) EDU 2119
0301	Gillian Grose TuTh 12:30pm - 1:45pm	Seats (Total: 40) EDU 2119
	Restricted to major codes: 0808L, 0808P, 0802L, 0802P.	

EDHD412 **Infant Development**

Infant development across domains, including perceptual, motor, cognitive, language, social and emotional functioning from pre-natal through third year of life.

0101	Natasha Cabrera W 9:30am - 12:15pm	Seats (Total: 40) TWS 0201

EDHD413 **Adolescent Development**

Adolescent development, including special problems encountered in contemporary culture. Observational component and individual case study.

0101	Katherine Luken Raz TuTh 11:00am - 12:15pm	Seats (Total: 40) EDU 1121
0201	Christina Edmonds MW 9:30am - 10:45am	Seats (Total: 40) EDU 2119

EDHD425 **Language Development and Reading Acquisition**

This course focuses on young children's language development and the relationship between language and reading acquisition. Students will learn: concepts central to language development; language achievements at different ages; concepts of emergent literacy; models of reading acquisition and skilled reading.

0101	Min Wang Tu 1:00pm - 3:45pm	Seats (Total: 35) EDU 1107
	Restricted to major code 0822P.	

EDHD426 **Cognitive and Motivational Literacy Content**

Students preparing for secondary teaching will learn about the cognitive and motivational aspects of literacy and learning from text for the content areas of literature, science, history and mathematics. Different evidenced-based literacy approaches appropriate for content learning are presented. Characteristics of learning environments that enable students to engage productively with diverse texts, disciplinary tasks, and technological resources in content areas are identified.

Restriction: Must be a Secondary Education major or Human Development major.

0101	Daphne Williams	Seats (Total: 38)
	W 5:30pm - 8:15pm	TWS 0201

EDHD440 **Adult Development**

Prerequisite: EDHD320; or permission of EDUC-Human Development and Quantitative Methodology department. Recommended: EDHD413.

Major conceptual approaches to the study of adult development including physical, cognitive, social, emotional and self processes that take place within individuals as they progress from emerging adulthood through middle age.

0101	Olga Walker	Seats (Total: 30)
	Th 11:00am - 12:15pm	EDU 3315
	Class time/details on ELMs	ONLINE

EDHD441 **Data Driven Decision Making in EC/ECSE**

Prerequisite: Minimum grade of C- in EDSP423, EDHD431, and EDSP315; and TRACK I: Must have completed EDSP430 and EDSP433 or TRACK 2: Must have completed EDHD415 and EDHD424. Corequisite: EDHD322, EDHD323, EDSP321, EDSP417, EDHD442, EDHD443, and EDHD444.

Students will be exposed to formative (e.g., classroom based, ongoing) and summative (e.g., standardized testing) assessments. Students will collect and analyze formative assessment data from their internship classrooms as the bases of planning and delivering instruction to meet the diverse needs of all learners. They will also analyze standardized assessment data to gain an understanding of measures used to determined cross-school and cross-teacher effectiveness. Includes Phase I field experience.

Restricted to major code 0822P.

0101	Amanda Schwartz	Seats (Total: 35)
	Meets October 16, 2023 - November 6, 2023	
	M 10:00am - 12:00pm	TWS 1106
	Contact instructor or department for details.	

EDHD442 **Interventions for Children with Behavioral Challenges**

Prerequisite: Minimum grade of C- in EDSP423, EDHD431, and EDSP315; and TRACK I: Must have completed EDSP430 and EDSP 433; or TRACK 2: Must have completed EDHD415 and EDHD 424. Corequisite: EDSP321, EDSP417, EDHD322, EDHD323, EDHD441, EDHD443, and EDHD444.

Students will expand knowledge of and develop skills to address challenging behaviors in inclusive early childhood classrooms. Students examine the causes underlying challenging behaviors during the early childhood years, and identify appropriate resources and support services for working with families to develop a unified approach when responding to behavioral challenges. Includes Phase I field experience.

Restricted to major code 0822P.

0101	Amanda Schwartz	Seats (Total: 35)
	Meets September 11, 2023 - October 2, 2023	
	M 10:00am - 12:00pm Contact instructor or department for details.	TWS 1106

EDHD443 Interventions for Children with Social and Communication Challenges

Prerequisite: Minimum grade of C- in EDSP423, EDHD431, and EDSP315; and TRACK I: Must have completed EDSP430 and EDSP 433; or TRACK 2: Must have completed EDHD415 and EDHD 424. Corequisite: EDHD322, EDSP321, EDSP417, EDHD323, EDHD441, EDHD442, and EDHD444.

Students will learn about the characteristics of children with autism spectrum disorder, pervasive developmental disorder, social communication disorder, and other related challenges and will be equipped to meet the needs of this group of children in the early childhood classroom. The utilization of Universal Design for Learning (UDL), Response to Intervention (RTI) and other early childhood special education approaches, as they apply to this specific group of children, will be addressed. Interventions designed to improve the functioning of children with autism spectrum disorders and related disorders will be reviewed. Includes Phase I field experience.

Restricted to major code 0822P.

0101	Amanda Schwartz	Seats (Total: 35)
	Meets November 13, 2023 - December 11, 2023	
	M 10:00am - 12:00pm Contact instructor or department for details.	TWS 1106

EDHD444 Action Research in EC/ECSE

Prerequisite: Minimum grade of C- in EDSP423, EDHD431, and EDSP315; and track 1: Must have completed EDSP430 and EDSP433; OR Track 2: Must have completed EDHD415 and EDHD424. Corequisite: EDHD322, EDHD323, EDHD441, EDHD442, EDHD443, EDSP417, and EDSP321.

Students will become familiar with the EC/ECSE research process, literature and how teachers use action research to improve pedagogy and the experiences of children in classrooms or home-based contexts. Students will utilize this knowledge, as well as either a goal in an Individualized Education Plan (IEP) or Individualized Family Service Plan (IFSP) or School Improvement Plan (SIP), to develop an action research study commenced during the following semester. Includes Phase I field experience.

Restricted to major code 0822P.

0101	Stephanie Varner **Meets September 11, 2023 - December 4, 2023** M 4:15pm - 6:15pm Contact instructor or department for details.	Seats (Total: 35) EDU 2119

EDHD460 **Educational Psychology**

Prerequisite: PSYC100; or permission of EDUC-Human Development and Quantitative Methodology department.

Application of psychology to learning processes and theories. Individual differences, measurement, motivation, emotions, intelligence, attitudes, problem solving, thinking and communicating in educational settings.

0101	Alice Donlan MW 2:00pm - 3:15pm	Seats (Total: 38) EDU 2119

EDHD489 **Field Experiences in Human Development**

(Perm req)

Planned field experience (internship or research-based activities) related to Human Development. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDHD498 **Special Research Problems in Human Development**

(Perm req)

Exploration of current research problems in the study of human development. Available only to students who have definite plans for individual study of approved research problems. Credit according to extent of work.

Contact department for information to register for this course.

EDHD617 **Achievement Motivation in Adolescence**

Credit only granted for: EDHD779W or EDHD617. Formerly: EDHD779W.

Study of different aspects of motivation and how they develop in the secondary school years. Focus on how different instructional practices influence motivation and design of various strategies for improving students motivation.

Contact department for information to register for this course.

EDHD629 **Developmental Science Seminar and Colloquium**

A seminar and colloquium series featuring speakers from the department, the college, the university, and other universities and institutions from across the world that aims to cover issues pertaining to contemporary theory and research in human development, child development, and developmental science. The seminar format is a weekly colloquia series, along with discussion sessions related to a range of developmental science topics.

0101	Min Wang, Natasha Cabrera **Meets August 28, 2023 - December 11, 2023** W 11:15am - 1:45pm	Seats (Total: 24) EDU 1107

EDHD718 **Apprenticeship in College Teaching; Apprenticeship in College Teaching**

(Perm req)

For graduate students teaching autonomously for the first, second, or third tiem at the University of Maryland, College Park; not intended for teaching assistants. This course provides graduate student teachers with a set of structured experiences that foster professional growth and development in the role of college instructor. Includes seminars on the scholarship of college teaching and principles of optimal college classroom environments, peer and faculty in-class observations of teaching, and guided reflective analysis of experience in the classroom.

0101	Jennie Lee-Kim F 1:00pm - 3:30pm	Seats (Total: 10) EDU 2101

EDHD720 **Social Development and Socialization Processes**

This course covers social development and socialization processes across the life-span. The course typically covers the following topics: parent-child relationships, peer relationships, moral development, social cognition, social competence, social motivation, self-regulation, and cultural influences on development. This is core doctoral course.

0101	Melanie Killen Tu 1:00pm - 3:45pm	Seats (Total: 20) ARC 1123

EDHD721 **Cognitive Development and Learning: An Introduction**

Introductory survey into contemporary theory and research in cognitive development; applications to classroom learning.

0101	Lucas Butler M 1:00pm - 3:45pm	Seats (Total: 20) EDU 2101

EDHD722 **Learning Theory and the Educative Process**

Prerequisite: EDHD721; or permission of EDUC-Human Development and Quantitative Methodology department.

Advanced study of theories, issues and research in several categories of cognition and learning applied to education and the helping professions.

0101	Patricia Alexander	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 2119

EDHD779A **Selected Topics in Human Development; How to Write More and Write Better: An Academic Writing Seminar**

This course focuses on topics of current significance in human development research. Topics covered change each semester, and vary by instructor.

0101	Geetha Ramani	Seats (Total: 20)
	M 9:30am - 12:15pm	KEY 0117

EDHD789 **Internship in Human Development**

(Perm req)

Internship experience in one or more human service agencies in the community.

Contact department for information to register for this course.

EDHD798 **Laboratory in Human Development**

(Perm req)

Independent research supervised by an instructor in a research setting.

Limited to human development majors.

Contact department for information to register for this course.

EDHD799 **Master's Thesis Research**

(Perm req)

Registration required to the extent of six hours for master's thesis.

Limited to human development majors.

Contact department for information to register for this course.

EDHD888 **Apprenticeship in Human Development Research**

(Perm req)

Apprenticeship in Human Development research.

Contact department for information to register for this course.

EDHD889 **Practicum in Human Development**

(Perm req)

Field experience in applied human development at a professional level of competence in a particular role with appropriate supervision.

Contact department for information to register for this course.

EDHD898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

EDHD899 **Doctoral Dissertation Research**

(Perm req)

Registration required to 12-18 hours for a Ph.D. dissertation.

Limited to human development majors.

Contact department for information to register for this course.

EDHI Education Leadership, Higher Ed and International Ed — Fall 2023

EDHI488F **Special Topics in Education Policy and Administration; Global Climate Change and Education: Policy and Practice**

Special and intensive treatment of current topics and issues in education policy and administration.

0101	Jing Lin	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 3315
	Class time/details on ELMs	ONLINE

EDHI489 **Field Experiences in Education**

(Perm req)

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDHI498 **Special Problems in Education**

(Perm req)

Available only to students who have definite plans for individual study of approved problems.

Contact department for information to register for this course.

EDHI605 **Comparative Education**

Credit only granted for: EDHI605, EDPL605, or EDPS605. Formerly: EDPL605.

Analyzes and compares leading issues in education in various countries of the world, particularly as they relate to crucial problems in American education.

0101	Zeena Zakharia Th 4:15pm - 7:00pm	Seats (Total: 20) EDU 3315

EDHI606 **Political Economy of Education in a Global Context**

Credit only granted for: EDHI606, EDPL606, or EDPS606. Formerly: EDPL606.

Examination of alternative economics perspectives and their implications for education policy and practice internationally, from local to global levels. The connection of education to issues of development, inequality, poverty, gender, and race will be discussed.

0101	Steven Klees Tu 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) EDU 3233 ONLINE

EDHI650 **Professional Seminar in Higher and Adult Education**

Credit only granted for: EDHI650, EDPL650, or EDPS650. Formerly: EDPL650.

Introduction to higher and adult education as a field of study. Origins, current dimensions and problems, and emerging issues. Field trips to state and national capitols, and involvement in professional conferences.

0101	Sharon Fries-Britt Th 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) EDU 3233 ONLINE

EDHI652 **Higher Education in American Society**

Credit only granted for: EDHI652, EDPL652, or EDPS652. Formerly: EDPL652.

Examines the concepts of academic freedom, corporate autonomy and institutional accountability with emphasis on twentieth century relationships between higher education and government in the United States.

0101	Jeongeun Kim W 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 15) JMZ 0103 ONLINE

EDHI665 **College Access and Choice**

Credit only granted for: EDHI665 or EDHI788L. Formerly: EDHI788L.

Examines the college-going process, how and why some students successfully navigate it, and what policies and programs can help students from disadvantaged or underrepresented backgrounds overcome barriers to college access and entry.

0101	Awilda Rodriguez Tu 4:15pm - 7:00pm	Seats (Total: 15) EDU 3236

EDHI672 **Modes of Inquiry in Education Research**

Restriction: Must be in a program in the Counseling, Higher Education, or Special Education department; or permission of the instructor. Credit only granted for: EDHI672 or EDPS672.

Introduction to modes of inquiry appropriate to research on issues and problems in education. Examination of qualitative, quantitative and mixed research methods and designs with a focus on related standards of quality.

0101	Steven Klees M 7:00pm - 9:45pm Class time/details on ELMs	Seats (Total: 20) ASY 3217 ONLINE

EDHI679 **Master's Seminar**

Directed study for master's degree students writing seminar papers.

Contact department for information to register for this course.

EDHI689 **Practicum In Educational Administration and Supervision**

(Perm req)

Promotes skill development in managerial, leadership and supervisory areas. Practicum is based on results of diagnostic instruments and an individual professional development plan.

Contact department for information to register for this course.

EDHI788F **Special Topics in Education Policy and Administration; Global Climate Change and Education: Policy and Practice**

Special and intensive treatment of current topics and issues in education policy and administration.

0101	Jing Lin M 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) EDU 3315 ONLINE

EDHI788Y **Special Topics in Education Policy and Administration; State-Level Higher Education Research**

Special and intensive treatment of current topics and issues in education policy and administration.

0101	Marvin Titus M 4:15pm - 7:00pm	Seats (Total: 15) EDU 3236

EDHI789 **Doctoral Practicum in Administration and Supervision**

Experiential activities designed to enhance student skills. Based on Individual Professional Development Plan for each student.

Contact department for information to register for this course.

EDHI798 **Special Problems in Education**

(Perm req)

Master's, AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Contact department for information to register for this course.

EDHI799 **Master's Thesis Research**
Contact department for information to register for this course.

EDHI888 **Apprenticeship in Education**

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Sharon Fries-Britt	Seats (Total: 5)
	Contact instructor or department for details.	

EDHI889 **Internship in Education**

(Perm req)

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDHI898 **Pre-Candidacy Research**
Contact department for information to register for this course.

EDHI899 **Doctoral Dissertation Research**

(Perm req)

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

EDMS Measurement, Statistics, and Evaluation — Fall 2023

EDMS451 **Introduction to Educational Statistics**

Restriction: Sophomore standing or higher.

Introduction to statistical reasoning; location and dispersion measures; computer applications; regression and correlation; formation of hypotheses tests; t-test; one-way analysis of variance; analysis of contingency tables.

0101	Gregory Hancock	Seats (Total: 120)
	TuTh 2:00pm - 3:15pm	JMZ 0220
	Restricted to Human Development majors and minors.	

EDMS623 **Applied Measurement: Issues and Practices**

Prerequisite: EDMS410. And EDMS645; or students who have taken courses with comparable content may contact the department.

Measurement theory and its application at an intermediate level; test development, validation and interpretation; issues and recent developments in measurement.

0101	Hong Jiao	Seats (Total: 25)
	Th 4:15pm - 7:00pm	EDU 2119

EDMS645 **Quantitative Research Methods I**

Research design and statistical applications in educational research: data representation; descriptive statistics; estimation and hypothesis testing. Application of statistical computer packages is emphasized.

0101	Weimeng Wang	Seats (Total: 30)
	W 4:15pm - 7:00pm	SQH 1101

EDMS646 **General Linear Models I**

Prerequisite: EDMS645; or an equivalent introductory statistics course.

A first post-introductory inferential statistics course, with emphasis on analysis of variance procedures and designs from within the general linear modeling framework. Assignments include student analysis of education and related data; application of statistical software packages is emphasized.

0101	Jeffrey Harring	Seats (Total: 30)
	Tu 4:15pm - 7:00pm	EDU 1107

EDMS651 **General Linear Models II**

Prerequisite: EDMS646; or students who have taken courses with comparable content may contact the department.

Multiple regression and correlation analysis; trend analysis; hierarchical and stepwise procedures; logistic regression; software for regression analysis.

0101	Jeffrey Harring	Seats (Total: 30)
	M 4:15pm - 7:00pm	EDU 1107

EDMS655 **Introduction to Multilevel Modeling**

Prerequisite: EDMS651; or students who have taken courses with comparable content may contact the department.

Introduction to multilevel models and methodology as strategies for modeling change and organizational effects.

0101	Tracy Sweet	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 3315

EDMS657 **Exploratory Latent and Composite Variable Methods**

Prerequisite: EDMS651.

Development of models for exploratory factor analysis and their practical applications. Additional topics will draw from latent class analysis, cluster analysis, mixture models, canonical correlation, multidimensional scaling, and configural frequency analysis.

0101	Gregory Hancock	Seats (Total: 30)
	Tu 4:15pm - 7:00pm	EDU 2119

EDMS769D **Special Topics in Applied Statistics in Education; Modeling Educational Survey Data from Complex Sampling Designs**

Designed primarily for students majoring or minoring in measurement, statistics or evaluation.

0101	Laura Stapleton	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 3233

EDMS769G **Special Topics in Applied Statistics in Education; Introduction to Graphical Models for Causal Inference**

Designed primarily for students majoring or minoring in measurement, statistics or evaluation.

0101	Peter Steiner	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 1121

EDMS798 **Special Problems in Education**

(Perm req)

Master's, EDMS majors, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Prerequisite: permission of department.

Contact department for information to register for this course.

EDMS799 **Master's Thesis Research**

Registration required to the extent of 6 credits.

Contact department for information to register for this course.

EDMS889 **Internship in Measurement and Statistics**

Provides internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDMS898 **Pre-Candidacy Research**
Contact department for information to register for this course.

EDMS899 **Doctoral Dissertation Research**

(Perm req)

Registration required to the extent of 12 credits.

Contact department for information to register for this course.

EDSP Education, Special Fall 2023

EDSP210 **Introduction to Special Education**

(Perm req)

Restriction: Sophomore standing or lower. Credit only granted for: EDSP210, EDSP211 or EDSP470.

Students examine historical foundations of special education, including legislation; review components necessary for effective service delivery; and develop an understanding of the role of collaboration and consultation with parents, school personnel and other professionals.

0101	Katryna Andrusik	Seats (Total: 20)
	MW 2:00pm - 3:15pm	SQH 1111

EDSP211 **Introduction to Special Education**

(Perm req)

Restriction: Sophomore standing or lower; and permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDSP210, EDSP211 or EDSP470.

Students examine historical foundations of special education, including legislation; review components necessary for effective service delivery; and develop an understanding of the role of collaboration and consultation with parents, school personnel and other professionals.

0101	Jennifer Amilivia	Seats (Total: 22)
	M 1:00pm - 3:45pm	EDU 3233

EDSP220 **Disability in Community: Access, Accommodation, and Adaptation**

Examines the concept of disability in a variety of community settings. Drawing on classic and contemporary readings in psychology, sociology and special education, the course will couple conceptual and historical understanding of disability with first-hand service-learning experiences in the community. Students will develop a plan in several phases that encompasses principles of Universal Design for Living/Learning (UDL) to study and participate in community-based activities.

0101	Carolyn Fink	Seats (Total: 25)
	Tu 11:00am - 12:15pm	ONLINE
	Class time/details on ELMs	ONLINE

EDSP298 **Special Problems in Teacher Education**

(Perm req)

Available only to freshmen and sophomore education majors who have definite plans for individual study of approved problems relative to their preparation for teaching. Credit according to extent of work.

Contact department for information to register for this course.

EDSP311 **Peer Mentor Training and Certification**

Provides opportunities and training to facilitate inclusion of students with ID/DD on campus as a peer mentor. Students will develop understanding of disabilities and other conditions that could affect learning and other activities and learn ways to assist and build friendship through a mentor-mentee relationship.

0101	Meredith Gramlich	Seats (Total: 50)
	TuTh 12:30pm - 1:45pm	TYD 0117

EDSP321 **The Young Child As Scientist**

Prerequisite: EDSP423, EDHD431, and EDSP315; and track 1: Must have completed EDSP430 and EDSP433; OR Track 2: Must have completed EDHD415 and EDHD424. Corequisite: EDHD322, EDHD323, EDSP417, EDHD441, EDHD442, EDHD443, and EDHD444.

A theoretical and pedagogical framework for evidence-based inclusive science instruction in inclusive early childhood classrooms. Examination of principles of inquiry-based science learning and develop strategies for helping children acquire fundamental problem-solving skills that may be applied to understanding a wide array of science content. Assessment strategies for evaluating the achievement of science objectives, and the achievement for all children will be addressed. Includes field experience.

0101	Jennifer Amilivia	Seats (Total: 32)
	W 8:00am - 10:30am	EDU 3315

EDSP376 **Fundamentals of Sign Language**

Receptive and expressive skills in American Sign Language. Examination of the causes of deafness, characteristics of deaf education, and aspects of the culture of the deaf community.

0101	Michael Dunham MW 5:00pm - 6:15pm	Seats (Total: 25) JMZ 2206	
0301	Elizabeth Martinez MW 6:15pm - 7:30pm	Seats (Total: 25) ONLINE	

EDSP400 **Instruction of Students with Severe Disabilities I**

Restriction: Must be in Special Education program. Jointly offered with EDSP602. Credit only granted for: EDSP400 or EDSP602.

Functional assessment procedures and instructional methods for students with severe disabilities.

0101	Seyma Intepe Tingir W 1:15pm - 4:00pm	Seats (Total: 40) ESJ 2309	

EDSP401 **Teaching Students with Disabilities in Elementary Classrooms**

(Perm req)

Restriction: Permission of EDUC-Special Education department. Credit only granted for: EDSP401 or EDSP499F. Formerly: EDSP499F.

This course is designed for elementary education majors to prepare for teaching students with disabilities in elementary classrooms. The course examines the legal requirements for general education teachers in the public schools including best practices for participating in the Individual Education Program (IEP) team process, and understanding Response to Intervention (RTI) as a approach to the early identification and support of students with learning and behavior needs. Information is provided on the characteristics of students who have been identified as having high incidence disabilities (e.g., learning disabilities, attention deficit hyperactivity disorder, speech and language delays, emotional or behavioral disorders, and other health impairments). The course then provides information on universal design (UDL) principles for learning, instructional suggestions to include students with disabilities in the general classroom, co-teaching and methods for integrating technology and assistive technology to benefit all students.

0101	Katryna Andrusik, Seyma Intepe Tingir M 4:15pm - 5:30pm W 11:00am - 12:15pm	Seats (Total: 30) TYD 1101 ONLINE	 Discussion
0102	Katryna Andrusik, Seyma Intepe Tingir M 4:15pm - 5:30pm Tu 11:00am - 12:15pm	Seats (Total: 30) TYD 1101 SYM 0215	 Discussion

EDSP404 **Methods of Teaching Autistic Students**

(Perm req)

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Jointly offered with: EDSP604. Credit only granted for: EDSP404 or EDSP604.

Characteristics of children and youth diagnosed with an autism spectrum disorder (ASD), assessment, and evidence-based instructional methods in teaching autistic students who come from diverse ethnic, cultural, and socio-economic backgrounds.

0101	Gulnoza Yakubova	Seats (Total: 40)
	W 4:15pm - 7:00pm	EDU 1121

EDSP411 **Foundations of Technology Integration for Curriculum Access**

(Perm req)

Prerequisite: EDSP210 or EDSP470. Restriction: Must be in Special Education program.

Addresses ways to integrate technology and Assistive Technology (AT) into content area instruction, use Accessible Educational Materials (AEM), and the Universal Design for Learning (UDL) framework to evaluate, analyze, and develop responsive instruction.

0101	Susan De La Paz	Seats (Total: 24)
	Th 1:15pm - 4:00pm	EDU 3315

EDSP413 **Principles and Practices in Positive Behavior Interventions and Classroom Supports**

Restriction: Must be in Special Education program. Jointly offered with: EDSP613. Credit only granted for: EDSP413 or EDSP613.

Use of positive behavior supports to promote both classwide and individual student behavior skills through function-based behavior assessment, establishing classroom expectations, and examining common misbehaviors that often result in learning loss.

0101	Alicia Woolf	Seats (Total: 22)
	Tu 4:15pm - 7:00pm	EDU 1121

EDSP417 **Reading Diagnosis and Assessment**

Prerequisite: EDSP423, EDHD431, and EDSP315; and track 1: Must have completed EDSP430 and EDSP433; OR Track 2: Must have completed EDHD415 and EDHD424. Corequisite: EDHD322, EDHD323, EDSP321, EDHD441, EDHD442, EDHD443, and EDHD444.

Reading Diagnosis and Assessment prepares teacher candidates to assess children in general and special early childhood educations settings in the areas of reading and writing in order to plan for instruction. The course will focus on diagnostic, screening, progress monitoring, and outcome assessments in early and beginning literacy. The course is designed to provide participants with the knowledge and skills necessary to collect and use a wide range of assessment data in general education and special education settings. Includes field experience.

0101	Monerah Al-Dubayan	Seats (Total: 32)
	M 1:00pm - 3:45pm	EDU 3315

EDSP420 **Child Development, Birth to Three Years**

Prerequisite: EDHD210, EDHD220, and EDSP211. Corequisite: EDHD314 and EDHD425. Cross-listed with: EDHD434. Credit only granted for: EDHD419A, EDSP420 or EDHD434. Formerly: EDHD419A.

Designed to provide students with an understanding of child development theory and research, as well as knowledge about typical and atypical development of children from birth to three years of age. The course emphasizes learning for children with and without disabilities, and for children who are at risk due to poverty and other environmental factors. The course will introduce how children develop and the challenges they face within the domains of physical, cognitive, language, social, and emotional development, with particular attention paid to the impact of risk factors on development. Students will become familiar with delays and differences in development that may occur as the result of disability. Finally, students will learn the effects of cultural and linguistic differences on growth and development. Information about theory and research in child development for children with and without disabilities will be enhanced through a series of observational experiences, which will build upon concepts addressed during class. Includes field experiences.

0101	Jennifer Amilivia	Seats (Total: 36)
	W 1:00pm - 4:00pm	EDU 3315

EDSP425 **Pre-Internship I**

Corequisite: EDSP451 and EDSP400. Restriction: Must be in the Special Education major.

This required EDSP field placement is a 3-hour per week seminar and field placement that meets across 15 weeks. Opportunities are provided to observe and participate in instructional experiences under the guidance of an assigned Host Teacher (HT) in a four-week experience in a high incidence placement AND a four-week experience in a low incidence (LI) placement. The purpose is to provide each special education teacher candidate (TC) with practical experience to complete field-based requirements and begin to meet the CEC Initial Preparation Standards (2012). Furthermore, since EDSP 425 is the first internship experience in the Special Education Program in the College of Education at University of Maryland, teacher candidates will become familiar with the Special Education Program, College of Education, Maryland State Department of Education (MSDE), Counsel for Accreditation of Educator Preparation (CAEP), and Council for Exceptional Children (CEC) expectations and requirements for graduation and teacher licensure.

0101	Dawn Martin	Seats (Total: 30)
	Tu 9:00am - 12:00pm	EDU 3315

EDSP443 **Language and Literacy Acquisition in Children with Disabilities**

Restriction: Must be in Special Education program. Additional information: This course is the first of four reading courses required by the Maryland State Department of Education for teacher certification in Special Education.

Language and literacy acquisition and characteristics of typical and atypical language development in supporting students with reading and writing disabilities.

0101	Veronica Kang W 4:15pm - 7:15pm	Seats (Total: 40) EDU 1107

EDSP451 **Curriculum and Instruction: Elementary/Middle Special Education**

Restriction: Must be in Special Education program. Jointly offered with EDSP652. Credit only granted for: EDSP451 or EDSP652.

Methods for instruction of students with disabilities in the general education curriculum. Collaboration with other professionals is included.

0101	Dawn Martin M 1:00pm - 4:00pm Class time/details on ELMs	Seats (Total: 40) EDU 1107 ONLINE

EDSP452 **Internship I: Elementary/Middle Special Education**

Restriction: Must be in Special Education program. Jointly offered with EDSP692. Credit only granted for: EDSP452 or EDSP692.

Field experience in elementary/middle school special education.

0101	Stacey Williams F 10:00am - 12:00pm WTh 8:00am - 3:00pm	Seats (Total: 20) EDU 2101 ONLINE	 Lab

EDSP470 **Introduction to Special Education**

Restriction: Must not have completed EDSP210. Credit only granted for: EDSP210, EDSP211 or EDSP470.

Designed to give an understanding of the needs of all types of exceptional children.

0101	Yang Fu, Tvisha Vyas TuTh 5:00pm - 6:15pm	Seats (Total: 42) TWS 1107
0301	Sara Pepkin Dataram, Stuti Gupta M 1:00pm - 3:45pm	Seats (Total: 40) TWS 1107

EDSP476 **Communicating with Sign Language**

(Perm req)

Prerequisite: EDSP376. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Intermediate level receptive/expressive skills in American Sign Language. Aspects of the culture, history, and research perspectives of the deaf community.

0101	Michael Dunham MW 6:15pm - 7:30pm	Seats (Total: 20) JMZ 3205

EDSP484 **Reading and Writing Instruction in Special Education II**

Prerequisite: EDSP416. Restriction: Must be in Special Education program. Jointly offered with EDSP684. Credit only granted for: EDSP484 or EDSP684.

Focus on the development of reading and writing programs for students in special education. Builds on foundations established in EDSP416.

0101	Katryna Andrusik Tu 1:15pm - 3:45pm	Seats (Total: 40) EDU 1121

EDSP489 **Field Experiences in Special Education**

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

2101	Jason Chow Contact instructor or department for details.	Seats (Total: 10)
2901	Elizabeth Martinez Contact instructor or department for details.	Seats (Total: 2)

EDSP490 **Teacher Candidate Research Seminar in Special Education**

Restriction: Must be in Special Education program.

Study of current issues and research concerning the education of students in special education.

0101	Seyma Intepe Tingir M 1:15pm - 4:00pm	Seats (Total: 20) SQH 1117

EDSP498 **Special Problems in Special Education**

(Perm req)

Available only to education majors who have definite plans for individual study of approved problems. Credit according to extent of work.

Special education majors only.

Contact department for information to register for this course.

EDSP499 **Workshops, Clinics, and Institutes in Special Education**

The following type of educational enterprise may be scheduled under this course heading: workshops conducted by the special education department (or developed cooperatively with other departments, colleges and universities) and not otherwise covered in the present course listing. Laboratories, and special education centers; institutes developed around specific topics or problems and intended for designated groups such as school superintendents, principals and supervisors.

0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2101	Jason Chow Contact instructor or department for details.	Seats (Total: 10)

EDSP600 **Issues and Trends in Educating Individuals with Disabilities**

Prerequisite: 9 credits in EDSP courses. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Examines research and practice relevant to the education of individuals with disabilities.

PUA1	Carolyn Fink Class time/details on ELMs *Must be in the General Education Teachers in Inclusive Classrooms program or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section*	Seats (Total: 25) ONLINE

EDSP602 **Instruction of Students with Severe Disabilities I**

Restriction: Must be in Special Education (Master's) program. Credit only granted for: EDSP400 or EDSP602.

Functional assessment procedures and instructional methods for students with severe disabilities.

0101	Seyma Intepe Tingir W 1:15pm - 4:00pm	Seats (Total: 40) ESJ 2309

EDSP604 **Methods of Teaching Autistic Students**

(Perm req)

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Jointly offered with: EDSP404. Credit only granted for: EDSP404 or EDSP604.

Characteristics of children and youth diagnosed with an autism spectrum disorder (ASD), assessment, and evidence-based instructional methods in teaching autistic students who come from diverse ethnic, cultural, and socio-economic backgrounds.

0101	Gulnoza Yakubova W 4:15pm - 7:00pm	Seats (Total: 40) EDU 1121

EDSP613 **Principles and Practices in Positive Behavior interventions and Classroom Supports**

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program; or permission of instructor. Jointly offered with: EDSP413. Credit only granted for: EDSP413 or EDSP613.

Use of positive behavior supports to promote both classwide and individual student behavior skills through function-based behavior assessment, establishing classroom expectations, and examining common misbehaviors that often result in learning loss.

0101	Alicia Woolf Tu 4:15pm - 7:00pm	Seats (Total: 22) EDU 1121

EDSP625 **Evidence Based Practices for Individuals with Significant Disabilities**

(Perm req)

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Examine and apply empirical research aligned to current trends and areas of investigation in the field of students with significant support needs.

0101	Seyma Intepe Tingir Tu 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) EDU 2101 ONLINE
PVE1	Agnesanne Danehey Tu 5:30pm - 8:30pm	Seats (Total: 10) BLD3 2133

Must be in the M.Ed. Special Education, Early Childhood Ages Birth to Age 5 or M.Ed. Special Education, Autism Spectrum Disorders and related Developmental Delays and Disabilities to register. Registration for students outside of these programs is By Permission Only. Golden ID students are not eligible for this section.

EDSP627 **Curriculum and Instruction: Early Childhood Special Education**

Jointly offered with EDSP422. Credit only granted for: EDSP422 or EDSP6 27.

Curriculum and instructor for young children with mild and moderate disabilities, preschool through primary grades.

PUD1	Chavis Lickvar-Armstrong M 5:30pm - 8:30pm	Seats (Total: 10) ONLINE

Must be in the M.Ed. Special Education, Early Childhood Ages Birth to Age 5 or M.Ed. Special Education, Autism Spectrum Disorders and related Developmental Delays and Disabilities to register. Registration for students outside of these programs is By Permission Only. Golden ID students are not eligible for this section.

EDSP632 **Embracing Diversity: Teaching Students with Disabilities and Gifted Learners in Secondary**

Prerequisite: Permission of instructor. Restriction: Permission of EDUC-Special Education department. Credit only granted for: EDSP609 or EDSP632. Formerly: EDSP609.

Designed for secondary education majors to prepare for teaching students with disabilities in secondary classrooms. Examines the legal requirements for general education teachers in the public schools including best practices for participating in the Individual Education Program (IEP) team process, and understanding Response to Intervention (RTI) as a approach to the early identification and support of students with learning and behavior needs. Information is provided on the characteristics of students who have been identified as having high incidence disabilities (e.g., learning disabilities, attention deficit hyperactivity disorder, speech and language delays, emotional or behavioral disorders, and other health impairments). Information is also provided on the characteristics of students who are considered gifted and/or talented, as well as instructional methods for differentiating instruction to meet their needs. Also provides information on universal design (UDL) principles for learning, instructional suggestions to include students with disabilities in the general classroom, co-teaching, and methods for integrating technology and assistive technology to benefit all students.

Contact department for information to register for this course.

EDSP652 **Curriculum and Instruction: Elementary Special Education**

Jointly offered with EDSP451. Credit only granted for: EDSP451 or EDSP6 52.

Methods for instruction of students with disabilities in the general education curriculum. Collaboration with other professionals is included.

For EDSP majors only.

0101	Dawn Martin M 1:00pm - 4:00pm Class time/details on ELMs	Seats (Total: 40) EDU 1107 ONLINE
PUA1	Kelly Piantedosi Class time/details on ELMs *Must be in the General Education Teachers in Inclusive Classrooms program. Golden ID students are not eligible for this section.*	Seats (Total: 25) ONLINE
PUA2	Kelly Piantedosi Class time/details on ELMs *Must be in the General Education Teachers in Inclusive Classrooms program. Golden ID students are not eligible for this section.*	Seats (Total: 25) ONLINE
PUA3	Kelly Piantedosi Class time/details on ELMs *Must be in the General Education Teachers in Inclusive Classrooms program. Golden ID students are not eligible for this section.*	Seats (Total: 25) ONLINE

EDSP655 **Seminar in Secondary and Transition Special Education**

Prerequisite: EDSP600. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Review of research pertaining to individuals with disabilities in secondary and post-secondary vocational and transitional settings.

PZC1	Christy Stuart	Seats (Total: 25)
	Meets August 28, 2023 - November 10, 2023	
	F 6:30pm - 9:30pm	Location: TBA
	Must be in Special Education Leadership, Germany (Ed.D). Golden ID students are not eligible for this section.	

EDSP671 **Qualitative Methodologies in Special Education**

Prerequisite: EDSP600. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Design and evaluation of qualitative research in special education across disabilities and ages.

PVB1	Nicole Abera	Seats (Total: 25)
	Meets October 20, 2023 - December 2, 2023	
	F 5:00pm - 8:00pm	BLD3 2203
	Sa 9:00am - 5:00pm	BLD3 2203
	Class time/details on ELMs	ONLINE
	Special Education Leadership, Shady Grove Program. Registration restricted to program participants. Golden ID students are not eligible for this section.	

EDSP678L **Seminar in Special Education; Leadership in Education**

PZC1	Lawrence Leak	Seats (Total: 25)
	Meets August 28, 2023 - December 19, 2023	
	Sa 9:00am - 4:30pm	Location: TBA
	Must be in Special Education Leadership, Germany (Ed.D). Golden ID students are not eligible for this section.	

EDSP684 **Reading and Writing Instruction in Special Education II**

(Perm req)

Prerequisite: EDSP616. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Jointly offered with EDSP484. Credit only granted for: EDSP484 or EDSP684.

Development of effective reading and writing programs for students receiving special education services. Builds on the foundation established in EDSP 616.

0101	Katryna Andrusik	Seats (Total: 40)
	Tu 1:15pm - 3:45pm	EDU 1121

EDSP690 **Teacher Candidate Research Seminar in Special Education**

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program.

Required seminar for master's certification teacher candidates in special education focusing on research methods and applications with students having disabilities.

0101	Seyma Intepe Tingir	Seats (Total: 20)
	M 1:15pm - 4:00pm	SQH 1117

EDSP692 **Graduate Internship I: Elementary/Middle Special Education**

Restriction: Must be in Special Education (Master's) program. Credit only granted for: EDSP452 or EDSP692.

Field experience in elementary/middle school special education.

0101	Stacey Williams	Seats (Total: 5)	
	F 10:30am - 12:00pm MTuWTh 8:00am - 1:00pm	Location: TBA ONLINE	Lab

EDSP788 **Selected Topics in Special Education**

(Perm req)

Current topics and issues in teacher education.

PUE1	Agnesanne Danehey	Seats (Total: 1)
	Meets August 29, 2023 - December 5, 2023	
	Class time/details on ELMs	ONLINE

EDSP798 **Special Problems in Special Education**

(Perm req)

Intended for Master's, AGS, or doctoral students in education who desire to pursue a research problem.

Special education majors only.

Contact department for information to register for this course.

EDSP798B **Special Problems in Special Education; Leadership & Management of Special Education Personnel**

(Perm req)

Intended for Master's, AGS, or doctoral students in education who desire to pursue a research problem.

PUB1	Robert Schulze	Seats (Total: 25)
	Meets September 8, 2023 - October 7, 2023	
	Class time/details on ELMs	ONLINE
	Special Education Leadership, Shady Grove Program. Registration restricted to program participants. Golden ID students are not eligible for this section.	

EDSP798Z **Special Problems in Special Education; Qualitative Investigation of Early Intervention/Early Childhood Topic**

(Perm req)

Intended for Master's, AGS, or doctoral students in education who desire to pursue a research problem.

PUB1	Isabel Geisler	Seats (Total: 1)
	Meets August 28, 2023 - December 4, 2023	
	Tu 5:00pm - 7:45pm	ONLINE

EDSP799 **Master's Thesis Research**

Registration required to the extent of six hours for Master's thesis.

Special education majors only.

Contact department for information to register for this course.

EDSP860 **Doctoral Research Seminar**

Issues and procedures relevant to conducting and analyzing research in special education.

0101	Susan De La Paz	Seats (Total: 15)
	M 12:00pm - 3:00pm	LEF 1222

EDSP875 **Policy Issues Affecting Individuals with Disabilities**

Restriction: Permission of instructor; or must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program.

An analysis of current educational and disability issues and policies pertaining to children, youth, and adults with disabilities.

0101	Philip Burke	Seats (Total: 25)
	Th 4:15pm - 7:00pm	EDU 1107

EDSP888 **Apprenticeship in Special Education**

(Perm req)

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate- seeking graduate students.

Contact department for information to register for this course.

EDSP888A **Apprenticeship in Special Education; Apprenticeship in College Teaching**

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate- seeking graduate students.

Contact department for information to register for this course.

EDSP889 **Internship in Special Education**

(Perm req)

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Special education majors only.

Contact department for information to register for this course.

EDSP898 **Pre-Candidacy Research**
Contact department for information to register for this course.

EDSP899 **Doctoral Dissertation Research**

(Perm req)

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. dissertation.

Special education majors only.

Contact department for information to register for this course.

EDUC Education Fall 2023

EDUC388 **Special Topics in Education; Guided Experience In College Teaching**

(Perm req)

0401	Sharon Vanwright	Seats (Total: 20)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

Relates to the academic achievement program and should be taken concurrently with EDCI498, section 6601.

EDUC388T **Special Topics in Education; Guided Experience in College Teaching - UTA**

(Perm req)

0101	Christine Hirst Bernhardt, Ryen Burris M 5:00pm - 7:00pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE	 Discussion

EDUC388U **Special Topics in Education; New Student Programs**

(Perm req)

0201	Tori Shay W 5:00pm - 7:00pm Contact instructor or department for details. *Restricted to students who are teaching UNIV100 or UNIV101.*	Seats (Total: 23) TWS 1106
0501	Evelyn Covington-Moore, Rachel Blanset Tu 5:00pm - 7:00pm Contact instructor or department for details.	Seats (Total: 20) SYM 3121

EDUC498 **Selected Topics in Education**

(Perm req)

Current topics and issues in education.

0101	Ryen Burris Contact instructor or department for details.	Seats (Total: 30)

EDUC498B **Selected Topics in Education; Career Development and Advising**

(Perm req)

Current topics and issues in education.

0101	Christie De Leon, Brittani Berry W 4:30pm - 5:20pm Contact instructor or department for details.	Seats (Total: 15) EDU 1204
0201	Jessica Chew M 4:30pm - 5:20pm Contact instructor or department for details.	Seats (Total: 7) EDU 0220

EDUC740 **Managing Educational Organizations in a Diverse Society**

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC740 or EDHI740. Formerly: EDHI740.

Contemporary social and cultural influences that impact on the management of schools and school systems in a diverse society. The effects on schools and school systems of changes in the economy, family structure, demographics and technology will be examined.

PXG1	LaTonya Williams, Pamela Shetley	Seats (Total: 15)
	Meets August 28, 2023 - October 14, 2023	
	F 4:00pm - 9:00pm Sa 8:30am - 4:00pm	ONLINE Location: TBA
	Must be in School System Leadership (Ed.D).	

EDUC747 **Advanced Seminar on Instructional Improvement for School Leaders**

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC747 or EDHI747. Formerly: EDHI747.

Course addresses current issues, research, trends, and problems in the areas of instructional improvement and the responsibilities of school-based administrators in improving student learning.

PXG1	Christine Neumerski	Seats (Total: 15)
	Meets October 23, 2023 - December 9, 2023	
	F 4:00pm - 9:00pm Sa 8:30am - 4:00pm	ONLINE Location: TBA
	Must be in School System Leadership (Ed.D).	

EDUC767 **Seminar on School District Leadership**

(Perm req)

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC767 or EDHI767. Formerly: EDHI767.

Examination of theory and research related to school district leadership with focus on improvement sciences. Course uses improvement science model to understand organizational, political, community, instructional problems of practice.

PXH1	Jean Snell, Melissa Kanney	Seats (Total: 25)
	Tu 5:00pm - 8:15pm Class time/details on ELMs	Location: TBA ONLINE
	Must be in School System Leadership: TESOL (Ed.D)	

EDUC829 **Doctoral Capstone**

The completion of a doctoral capstone is required for all professional practice doctoral students, allowing demonstration of excellence in professional practice in the field of education leadership. The topic, activities, and outcomes related to the doctoral capstone must be approved by the doctoral advisor and capstone committee and presented and defended by the student.

Contact department for information to register for this course.

EDUC888 **Applied Apprenticeship in Education**

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals.

PUG1	Pamela Shetley	Seats (Total: 15)
	Class time/details on ELMs	ONLINE
	Must be in School System Leadership (Ed.D).	

EDUC898 **Pre-Candidacy Research**

Pre-Candidacy Research

Contact department for information to register for this course.

EDUC899 **Dissertation of Practice Research**

(Perm req)

Registration required to the extent of 6-9 hours for an Ed.D. Dissertation.

Contact department for information to register for this course.

EMBA Executive MBA Program Fall 2023

EMBA637 **Corporate Finance**

Restriction: Must be in Executive MBA program.

Presents key concepts in corporate finance as well as tools used in making corporate financial decisions. Topics include valuation of corporate securities, capital investment decision making, capital market theory, operation and efficiency of financial markets, corporate financing decisions, and risk management.

Contact department for information to register for this course.

EMBA656 **Leadership and Human Capital**

Restriction: Must be in Executive MBA program.

The overall objective of this course is to sensitize participants to the fact that managers face many dilemmas (such as the need to maintain control, yet be flexible enough to effectively change as the competitive environment requires); and therefore, managers need to have skills that will enable them to effectively manage and lead, and thus to become leader-managers. How managing versus leading-skills differ will be emphasized in this course. To raise participants' sensitivity to managerial dilemmas and the skills needed to effectively manage these, there will be extensive use of case discussions and video-clips about challenges faced by companies and their managers, and extensive opportunities for self-reflective and experiential exercises. The development of action-plans for implementing a desirable change in participants' current job-situation will also help participants to hone the skills needed to be effective change-agents, hence leaders, in their organization.

Contact department for information to register for this course.

EMBA681 **Managerial Economics and Public Policy**

Restriction: Must be in Executive MBA program.

Basic microeconomic principles used by firms, including supply and demand, elasticities, costs, productivity, pricing, marketing structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

Contact department for information to register for this course.

EMBA759 **Independent Study**

(Perm req)

Independent study for Masters students in Business.

Contact department for information to register for this course.

EMBA788B **Executive Skills Mastery; Doing Business in Brazil**

(Perm req)

This course is designed to focus on the development of the specific set of skills that executives need to successfully perform in today's organizational environment. Students complete assessments which help to target their specific skill level and in the aggregate give instructors clear ideas on the needs of the cohort. The assessments also augment executive coaching, when provided. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

GX01	Paulo Prochno	Seats (Total: 5)
	Meets October 23, 2023 - December 15, 2023	
	Su 12:00pm - 1:00pm	VMH 1303
	Contact instructor or department for details.	

EMBA788J **Executive Skills Mastery; Doing Business in South Africa**

(Perm req)

This course is designed to focus on the development of the specific set of skills that executives need to successfully perform in today's organizational environment. Students complete assessments which help to target their specific skill level and in the aggregate give instructors clear ideas on the needs of the cohort. The assessments also augment executive coaching, when provided. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

GX01	Bennet Zelner **Meets October 23, 2023 - December 15, 2023** Su 12:00pm - 1:00pm Contact instructor or department for details.	Seats (Total: 5) VMH 1330

EMBA788W **Executive Skills Mastery; Doing Business in Asia: Supply Chain Challenges and Opportunities in Asia**

(Perm req)

This course is designed to focus on the development of the specific set of skills that executives need to successfully perform in today's organizational environment. Students complete assessments which help to target their specific skill level and in the aggregate give instructors clear ideas on the needs of the cohort. The assessments also augment executive coaching, when provided. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

GX01	Zhi-Long Chen **Meets October 23, 2023 - December 15, 2023** Su 12:00pm - 1:00pm Contact instructor or department for details.	Seats (Total: 5) VMH 1333

EMBA789N **Leadership Mastery**

This course addresses organizational challenges from the CEO or C-level perspective. At this level, the ability to engage ambiguity and chaos effectively is essential. Creating strategy while using a systems approach and understanding how each functional area interacts with the other (with both the short-term and long-term in mind) are of very high importance. The course covers topics that consume the days of senior level leaders in organizations. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

EM23	Rosellina Ferraro **Meets August 2, 2023 - December 12, 2023** Contact instructor or department for details.	Seats (Total: 50)

EMBA798G **Action Learning Project**

This course is designed to give the student the opportunity to work on a real-time, salient business challenge or issue for the sponsoring organization. This is often the student's employer. Students are encouraged to design projects which extend beyond a single functional area and require them to examine the interaction of multiple functional areas from a systems perspective. Students work in teams for the projects. This allows them to learn from one another, as well as to learn how to work more effectively in teams - especially in a largely virtual environment. This is typically a two credit course when projects are initiated and completed entirely within a single term. It may be a one credit course when projects extend over more than one term.

EM23	Jacqueline Manger, Jeffrey Mund **Meets June 16, 2023 - November 20, 2023** Contact instructor or department for details.	Seats (Total: 50)

EMBA798K **Action Learning Project**

This course is designed to give the student the opportunity to work on a real-time, salient business challenge or issue for the sponsoring organization. This is often the student's employer. Students are encouraged to design projects which extend beyond a single functional area and require them to examine the interaction of multiple functional areas from a systems perspective. Students work in teams for the projects. This allows them to learn from one another, as well as to learn how to work more effectively in teams - especially in a largely virtual environment. This is typically a two credit course when projects are initiated and completed entirely within a single term. It may be a one credit course when projects extend over more than one term.

Contact department for information to register for this course.

ENAE Engineering, Aerospace Fall 2023

ENAE100 **The Aerospace Engineering Profession**

(Perm req)

Recommended: ENES100 and MATH140.

Overview of salient aspects of professional practice of Aerospace Engineering. Introduction to the range of technical expertise needed to succeed in the profession and the objectives of the various parts of the Aerospace Engineering program at UMCP in supporting students' efforts in gaining the required knowledge and skills. Familiarization with departmental faculty and their areas of research, creation of links with other students, professional society student chapters, and available resources. Discussion of ethical issues, business requirements, and their interactions with technical developments.

0101	Christine Hartzell Tu 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 30) EGR 1202 MTH 0405	 Discussion
0102	Christine Hartzell Tu 12:30pm - 1:45pm M 4:00pm - 4:50pm	Seats (Total: 30) EGR 1202 CHM 1228	 Discussion

0103	Christine Hartzell Tu 12:30pm - 1:45pm Tu 11:00am - 11:50am	Seats (Total: 30) EGR 1202 MTH B0427	Discussion
0104	Christine Hartzell Tu 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 30) EGR 1202 MTH 0402	Discussion
0105	Christine Hartzell Tu 12:30pm - 1:45pm W 4:00pm - 4:50pm	Seats (Total: 30) EGR 1202 MTH 0407	Discussion

ENAE202 **Computing Fundamentals for Engineers**

(Perm req)

Corequisite: MATH141. Credit only granted for: ENAE202 or ENME202.

Introduction to computational tools for the solution of engineering problems. C++ & MATLAB programming including branching and loops, functions, file handling, arrays, and data structures. Students will be introduced to object-oriented programming, basic computing, algorithms, and principles of software engineering.

0104	Avik Dutt MW 11:00am - 11:50am W 2:00pm - 3:50pm	Seats (Total: 29) HJP 0226 EGR 0312	Lab

ENAE283 **Introduction to Aerospace Systems**

Prerequisite: PHYS161, MATH141, and ENES102. Corequisite: PHYS261 and PHYS260. Restriction: Must be in Engineering: Aerospace program. Credit only granted for: (ENAE281 and ENAE282) or ENAE283. Formerly: ENAE281 and ENAE282.

Introduction to airplanes and space vehicles as aerospace systems. Fundamentals that describe these systems. Elements of aerodynamics, airfoils and wings. Airplane performance, stability and control. Aircraft and rocket propulsion. Fundamentals of orbital motion. Aspects of vehicle conceptual design.

0101	Mary Bowden TuTh 12:30pm - 1:45pm	Seats (Total: 60) CHE 2108	
0102	Benjamin Silbaugh TuTh 12:30pm - 1:45pm	Seats (Total: 60) ESJ 2208	

ENAE283H **Introduction to Aerospace Systems**

(Perm req)

Prerequisite: PHYS161, MATH141, and ENES102. Corequisite: PHYS261 and PHYS260. Restriction: Must be in Engineering: Aerospace program. Credit only granted for: (ENAE281 and ENAE282) or ENAE283. Formerly: ENAE281 and ENAE282.

Introduction to airplanes and space vehicles as aerospace systems. Fundamentals that describe these systems. Elements of aerodynamics, airfoils and wings. Airplane performance, stability and control. Aircraft and rocket propulsion. Fundamentals of orbital motion. Aspects of vehicle conceptual design.

0101	Alison Flatau TuTh 12:30pm - 1:45pm	Seats (Total: 30) EGR 1104	

ENAE301 Dynamics of Aerospace Systems

Prerequisite: PHYS271, MATH461, PHYS270, MATH246, ENAE283, ENAE202, ENES102, and MATH241. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Kinematics and dynamics of three dimensional motion of point masses and rigid bodies with introduction to more general systems. Primary emphasis on Newtonian methods. Practice in numerical solutions and computer animation of equations of motion using MATLAB.

0101	Derek Paley TuTh 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 38) ESJ 1224 JMP 2202	 Lab
0102	Derek Paley TuTh 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 39) ESJ 1224 JMP 2202	 Lab
0103	Derek Paley TuTh 12:30pm - 1:45pm F 3:00pm - 3:50pm	Seats (Total: 39) ESJ 1224 JMP 2202	 Lab
0104	Derek Paley TuTh 12:30pm - 1:45pm F 4:00pm - 4:50pm	Seats (Total: 38) ESJ 1224 JMP 2202	 Lab

ENAE311 Compressible Aerodynamics

Prerequisite: PHYS271, (MATH240 or MATH461), PHYS270, MATH246, ENAE283, ENES220, ENAE202, MATH241, and ENES232. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department; and junior standing or higher.

Fundamentals of aerodynamics. Elements of compressible flow. Normal and oblique shock waves. Flows through nozzles, diffusers and wind tunnels. Elements of the method of characteristics and finite difference solutions for compressible flows. Aspects of hypersonic flow.

Prerequisite: ENAE311 or enrolled in hypersonics graduate certificate program. Corequisite: ENAE481 or ENAE483.

0101	Christopher Cadou TuTh 9:30am - 10:45am	Seats (Total: 165) EGR 1202	

ENAE311H **Compressible Aerodynamics**

(Perm req)

Prerequisite: PHYS271, (MATH240 or MATH461), PHYS270, MATH246, ENAE283, ENES220, ENAE202, MATH241, and ENES232. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department; and junior standing or higher.

Fundamentals of aerodynamics. Elements of compressible flow. Normal and oblique shock waves. Flows through nozzles, diffusers and wind tunnels. Elements of the method of characteristics and finite difference solutions for compressible flows. Aspects of hypersonic flow.

0101	Christoph Brehm TuTh 9:30am - 10:45am	Seats (Total: 30) JMP 1202	

ENAE362 **Aerospace Instrumentation and Experimentation**

Prerequisite: MATH246 and ENAE283. Restriction: Must be in Engineering: Aerospace program; and junior standing or higher.

Basic instrumentation electronics including DC electronics, AC electronics, semiconductors, electro-optics and digital electronics. Sensing devices used to carry out experiments in Aerospace Engineering includes metrology, machine tool measurements, bridge circuits, optical devices, and introduction to computer based data acquisition. Topics chosen to support measurements in aerodynamics, flight structures and flight control.

0101	Benjamin Silbaugh, Allen Winkelmann MW 1:00pm - 1:50pm M 2:00pm - 5:00pm	Seats (Total: 24) EGR 1202 EGL 0123	 Lab
0102	Allen Winkelmann, Benjamin Silbaugh MW 1:00pm - 1:50pm Tu 2:00pm - 5:00pm	Seats (Total: 24) EGR 1202 EGL 0123	 Lab
0103	Allen Winkelmann, Benjamin Silbaugh MW 1:00pm - 1:50pm W 2:00pm - 5:00pm	Seats (Total: 24) EGR 1202 EGL 0123	 Lab

0104	Benjamin Silbaugh, Allen Winkelmann MW 1:00pm - 1:50pm Th 2:00pm - 5:00pm	Seats (Total: 24) EGR 1202 EGL 0123	 Lab
0105	Allen Winkelmann, Benjamin Silbaugh MW 1:00pm - 1:50pm W 8:50am - 11:50am	Seats (Total: 24) EGR 1202 EGL 0123	 Lab
0106	Allen Winkelmann, Benjamin Silbaugh MW 1:00pm - 1:50pm F 8:50am - 11:50am	Seats (Total: 24) EGR 1202 EGL 0123	 Lab

ENAE380 **Flight Software Systems**

Prerequisite: ENAE283 and ENAE202. Restriction: Must be in Engineering: Aerospace program; and junior standing or higher.

Avionics using advanced sensor and computing technologies are at the heart of every modern Aerospace vehicle. Advanced software systems to improve cockpit safety and enable unmanned and deep-space missions. Object-oriented programming and software engineering concepts required to design and build complex flight software systems. Software validation, verification and real-time performance analysis to assess flight software system reliability and robustness. Human-machine interface design for piloted systems. Automatic onboard data acquisition and decision-making for unmanned air and space vehicles.

0101	Mumu Xu MW 12:00pm - 12:50pm F 9:00am - 10:50am	Seats (Total: 32) ESJ 2204 MTH 0103	 Discussion
0102	Mumu Xu MW 12:00pm - 12:50pm F 1:00pm - 2:50pm	Seats (Total: 30) ESJ 2204 MTH 0411	 Lab
0104	Mumu Xu MW 12:00pm - 12:50pm Tu 2:00pm - 3:50pm	Seats (Total: 32) ESJ 2204 PHY 1201	 Lab
0105	Mumu Xu MW 12:00pm - 12:50pm W 9:00am - 10:50am	Seats (Total: 30) ESJ 2204 MTH 0407	 Lab
0106	Mumu Xu MW 12:00pm - 12:50pm W 10:00am - 11:50am	Seats (Total: 30) ESJ 2204 MTH 0409	 Lab

ENAE398H **Honors Research Project**

(Perm req)

Planned sequence of steps in aerospace honors research in which students take three (3) consecutive semesters of this course in partial fulfillment of aerospace engineering honors program requirements. The first semester consists of a series of seminars and meetings with faculty mentors on honors research; two semesters consist of undergraduate honors research project and paper conducted under the direction of an aerospace engineering faculty member to be presented at a conference.

Contact department for information to register for this course.

ENAE403 **Aircraft Flight Dynamics**

Prerequisite: ENAE414 and ENAE432. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Study of motion of aircraft, equations of motion, aerodynamic force representation, longitudinal and lateral motions, response to controls and to atmospheric disturbances, handling qualities criteria and other figures of merit.

0101	Michael Otte TuTh 3:30pm - 4:45pm	Seats (Total: 70) ANS 0408

ENAE414 **Incompressible Aerodynamics**

Prerequisite: PHYS271, (MATH240 or MATH461), PHYS270, MATH246, ENAE283, ENES220, ENAE202, MATH241, and ENES232. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department; and junior standing or higher.

Aerodynamics of inviscid incompressible flows. Aerodynamic forces and moments. Fluid statics/buoyancy force. Vorticity, circulation, the stream function and the velocity potential. Bernoulli's and Laplace's equations. Flows in low speed wind tunnels and airspeed measurement. Potential flows involving sources and sinks, doublets, and vortices. Development of the theory of airfoils and wings.

0101	Benjamin Silbaugh TuTh 9:30am - 10:45am	Seats (Total: 35) EGR 2154

ENAE423 **Vibration and Aeroelasticity**

Prerequisite: ENAE324. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Dynamic response of single and multiple degrees of freedom systems, finite element modeling, wing divergence, aileron reversal, wing and panel flutter.

0101	Sung Lee MWF 11:00am - 11:50am	Seats (Total: 125) ESJ 1202

ENAE423H **Vibration and Aeroelasticity**

(Perm req)

Prerequisite: ENAE324. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Dynamic response of single and multiple degrees of freedom systems, finite element modeling, wing divergence, aileron reversal, wing and panel flutter.

0101	Norman Wereley	Seats (Total: 30)
	MWF 11:00am - 11:50am	EGR 2116

ENAE441 **Space Navigation and Guidance**

Prerequisite: ENAE404 and ENAE432. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Principles of navigation. Celestial, radio, and inertial navigation schemes. Navigational and guidance requirements for orbital, planetary, and atmospheric entry missions. Fundamentals of communications and information theory. Link budgets, antennas and telemetry systems.

0101	Liam Healy	Seats (Total: 100)
	TuTh 9:30am - 10:45am	BPS 1243

ENAE455 **Aircraft Propulsion and Power**

Prerequisite: ENES232, ENAE414, and ENAE311. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Thermodynamic cycle analysis, aerothermochemistry of fuels and propellants, operating principles of piston, turbojet, fanjet, and other variations of airbreathing aircraft power units.

0101	Kenneth Yu	Seats (Total: 70)
	TuTh 12:30pm - 1:45pm	ANS 0408

ENAE457 **Space Propulsion and Power**

Prerequisite: PHYS271, ENES232, PHYS270, and ENAE311. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department. And senior standing.

Thermodynamic cycle analysis, aerothermochemistry of fuels and propellants, operating principles of rocket, ion, and other exoatmospheric power units.

0101	Ray Sedwick	Seats (Total: 110)
	TuTh 2:00pm - 3:15pm	CHE 2110

ENAE457H **Space Propulsion and Power**

(Perm req)

Prerequisite: PHYS271, ENES232, PHYS270, and ENAE311. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department. And senior standing.

Thermodynamic cycle analysis, aerothermochemistry of fuels and propellants, operating principles of rocket, ion, and other exoatmospheric power units.

0101	Ray Sedwick TuTh 12:30pm - 1:45pm	Seats (Total: 20) HBK 0125

ENAE481 Principles of Aircraft Design

Prerequisite: ENAE324, ENAE362, and ENAE432. Corequisite: ENAE414. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Aircraft design principles blending both synthesis and analysis. The iterative nature of the design process. Applied aerodynamics. Elements of aircraft performance calculation and optimization. Design of aircraft including payload, crew and avionics provisions, propulsion selection and sizing, aerodynamic configuration optimization, mass properties, stability and control characteristics, and vehicle subsystems. Individual student projects in aircraft design.

Restricted to students in the Vertical Flight Society Helicopter Design Competition and requires permission of the instructor to enroll.

0101	Dominic Palumbo MWF 2:00pm - 2:50pm	Seats (Total: 40) EGR 3106
0201	Sung Lee TuTh 2:00pm - 3:15pm	Seats (Total: 17) EGR 3102
	Restricted to students on the Design, Build, Fly team and requires permission from the department to enroll.	
0301	Vengalattore Nagaraj TuTh 2:00pm - 3:15pm	Seats (Total: 10) SPH 0301
	Restricted to students in the Vertical Flight Society Helicopter Design Competition and requires permission of the instructor to enroll. Membership of Vertical Flight Society is not necessary to enroll in the class.	

ENAE483 Principles of Space Systems Design

Prerequisite: ENAE404, ENAE324, ENAE362, and ENAE432. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Principles of space systems analysis and vehicle design. Launch vehicle performance analysis and optimization. Design of vehicle systems including avionics, power, propulsion, life support, human factors, structures, actuator and mechanisms, and thermal control. Design processes and design synthesis. Individual student projects in vehicle design.

0101	David Akin	Seats (Total: 110)
	TuTh 11:00am - 12:15pm	TMH 0301

ENAE488N **Topics in Aerospace Engineering; Introduction to Hypersonics**

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Prerequisites: ENAE311 or enrolled in hypersonics graduate certificate program. Co-requisite: ENAE481 or ENAE483. Introduces students to the various key aspects of flight at hypersonic speeds. Critical aerodynamic phenomena to be covered includes the qualitative behavior of flow fields in the high-Mach-numberlimit, approximate methods for quantifying surface pressure, and estimates of viscous drag and heating. High-speed air-breathing propulsion systems will be discussed, including cycle analysis and performance metrics for propulsion, with a main emphasis onthe fundamentals of ramjet and scramjet engines. Key Guidance, Navigation and Control (GNC) concepts for various hypersonic vehicle types will also be introduced, including the design of appropriate flight trajectories and control algorithms to achieve mission goals. Finally, students will be provided with an overview of high-temperature materials, structures, and thermal protection systems.

0101	Stuart Laurence, Kenneth Yu	Seats (Total: 25)
	MWF 10:00am - 10:50am	EGR 1102

ENAE499 **Elective Research**

(Perm req)

Undergraduate research project and paper conducted under the direction of an aerospace engineering faculty member to be presented at a conference or competition.

Contact department for information to register for this course.

ENAE601 **Astrodynamics**

Prerequisite: ENAE404; or permission of ENGR-Aerospace Engineering department.

Mathematics and applications of orbit theory, building upon the foundations developed in ENAE 404 and ENAE 441. Topics include two body orbits, solutions of Kepler's equation, the two-point boundary value problem, rendezvous techniques, and Encke's method.

0101	Christine Hartzell	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	EGR 2154

ENAE603 **Near-Earth Object Exploration**

(Perm req)

Prerequisite: ENAE601. Restriction: Must be in one of the following programs (ENGR: MS/PhD-Aerospace Engineering (Master's); ENGR: MS/PhD-Aerospace Engineering (Doctoral)). Credit only granted for: ENAE788N or ENAE603. Formerly: ENAE788N.

An overview of the near-Earth objects (NEOs) of our solar system--the asteroids and comets whose orbits closely approach Earth's orbit--and what we know about them, what we're learning about them, and how to design spacecraft missions to interact with them.

0101	Brent Barbee TuTh 5:00pm - 6:15pm	Seats (Total: 15) MTH B0431

ENAE631 **Helicopter Aerodynamics I**

(Perm req)

Prerequisite: ENAE414 and ENAE311. Or permission of ENGR-Aerospace Engineering department; and permission of instructor.

A history of rotary-wing aircraft, introduction to hovering theory, hovering and axial flight performance, factors affecting hovering and vertical flight performance, autorotation in vertical descent, concepts of blade motion and control, aerodynamics of forward flight, forward flight performance, operational envelope, and introduction to rotor acoustics.

Those sections that begin with a letter are taught via ITV and are not intended for College Park campus students.

0101	Inderjit Chopra TuTh 9:30am - 10:45am	Seats (Total: 20) JMP 2216
TV01	Inderjit Chopra TuTh 9:30am - 10:45am	Seats (Total: 5) Location: TBA

ENAE636 **Helicopter Dynamics II**

Credit only granted for: ENAE788R or ENAE636. Formerly: ENAE788R.

Aerodynamics, dynamics and aeromechanics of helicopters and tilt rotor aircraft. Experimental testing and mathematical modeling required for the design and analysis of such aircraft.

0101	Anubhav Datta MW 9:30am - 10:45am	Seats (Total: 15) JMP 2222
TV01	Anubhav Datta MW 9:30am - 10:45am	Seats (Total: 5) Location: TBA

ENAE641 **Linear System Dynamics**

Prerequisite: ENAE432.

Linear systems; state space, multi-input, multi-output models; eigenstructure; controllability, observability, singular value analysis; multivariable Nyquist condition; observer design; introduction to Kalman filtering. Full state feedback techniques including pole placement and LQR/LQG techniques; introduction to loop shaping and robustness.

0101	Robert Sanner TuTh 12:30pm - 1:45pm	Seats (Total: 25) EGR 2154

ENAE655 Structural Dynamics

Advanced principles of dynamics necessary for structural analysis; solutions of eigenvalue problems for discrete and continuous elastic systems, solutions to forced response boundary value problems by direct, modal, and transform methods.

0101	Anubhav Datta WF 1:00pm - 2:15pm	Seats (Total: 35) MTH 0303

ENAE673 Aerodynamics of Incompressible Fluids

Prerequisite: Undergraduate courses in differential equations, incompressible, and compressible flow (ENAE311; and one course from ENAE414; ENME331, OR ENME640, or equivalent). Restriction: Must be in ENGR: MS/PhD-Aerospace Engineering (Master's) program.

Introduces the fundamental concepts of incompressible flows. Topics to be addressed include the conservation equations, potential flow, lift and drag, Navier-Stokes equations, boundary layers and similarity solutions, and solutions to classical problems.

0101	Pino Martin TuTh 9:30am - 10:45am	Seats (Total: 20) MTH 0407

ENAE681 Engineering Optimization

Methods for unconstrained and constrained minimization of functions of several variables. Sensitivity analysis for systems of algebraic equations, eigenvalue problems, and systems of ordinary differential equations. Methods for transformation of an optimization problem into a sequence of approximate problems. Optimum design sensitivity analysis.

0101	John Tritschler TuTh 6:30pm - 7:45pm	Seats (Total: 20) EGR 2116
0201	John Tritschler TuTh 6:30pm - 7:45pm	Seats (Total: 10) ONLINE

ENAE682 Hypersonic Aerodynamics

Restriction: Permission of ENGR-Aerospace Engineering department.

Hypersonic shock and expansion waves, Newtonian theory, Mach methods, numerical solutions to hypersonic inviscid flows, hypersonic boundary layer theory, viscous interactions, numerical solutions to hypersonic viscous flows. Applications to hypersonic vehicles.

0101	Stuart Laurence	Seats (Total: 30)	
	TuTh 2:00pm - 3:15pm	ONLINE	

ENAE684 **Computational Fluid Dynamics I**

(Perm req)

Restriction: Permission of ENGR-Aerospace Engineering department.

Partial differential equations applied to flow modelling, fundamental numerical techniques for the solution of these equations, elliptic, parabolic, and hyperbolic equations, elements of finite difference solutions, explicit and implicit techniques. Applications to fundamental flow problems.

0101	James Baeder	Seats (Total: 25)	
	TuTh 11:00am - 12:15pm	CHE 2145	
TV01	James Baeder	Seats (Total: 10)	
	TuTh 11:00am - 12:15pm	ONLINE	

ENAE692 **Introduction to Space Robotics**

Prerequisite: ENAE301 or ENES221. Recommended: ENAE432.

Introduction to the kinematics, dynamics, and control of robot manipulators. DH parameters, serial and parallel manipulators, kinematic redundancy, sensors, actuators, and mechanism design. Control concepts introduced ranging from independent joint control to impedance control. Examples drawn from space robotics, wearable robotics, and other areas.

0101	Carl Henshaw, Craig Carignan	Seats (Total: 30)	
	MW 5:00pm - 6:15pm	JMP 2202	
	MW 4:00pm - 4:50pm	JMP 2202	Discussion

ENAE788D **Selected Topics in Aerospace Engineering; Advanced Space Systems Design**

0101	David Akin	Seats (Total: 8)	
	TuTh 11:00am - 12:15pm	TMH 0301	

ENAE788K **Selected Topics in Aerospace Engineering; Estimation and Control of Stochastic Systems**

0101	Robert Sanner	Seats (Total: 15)	
	MW 2:00pm - 3:15pm	CHE 2116	

ENAE788Q **Selected Topics in Aerospace Engineering; Hydrodynamic Stability I**

0101	Christoph Brehm TuTh 4:00pm - 5:15pm	Seats (Total: 10) Location: TBA

ENAE799 **Master's Thesis Research**
Contact department for information to register for this course.

ENAE898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENAE899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENBC Biocomputational Engineering Fall 2023

ENBC301 **Introduction to Biocomputational Engineering**

(Perm req)

Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in Biocomputational Engineering major.

Provides practical tools to help Biocomputational Engineering majors to think critically about their goals and career paths and to utilize their major to set their career trajectory.

ESG1	Sivan Saravanapavan W 1:30pm - 2:20pm	Seats (Total: 20) BLD4 1119
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC311 **Python for Data Analysis**

(Perm req)

Prerequisite: Minimum grade of C- in MATH241; and minimum grade of C- in BIOE241 or approved prior study in Matlab. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE489A, BIOE442 or ENBC311.

Provides an introduction to structured programming, computational methods, and data analysis techniques with the goal of building a foundation allowing students to confidently address problems in research and industry. Fundamentals of programming, algorithms, and simulation are covered from a general computer science perspective, while the applied data analysis and visualization portion makes use of the Python SciPy stack.

ESG1	Bardia Yousefi MW 10:00am - 11:15am	Seats (Total: 20) BLD4 3210
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC322 **Algorithms**

(Perm req)

Prerequisite: Minimum grade of C- in ENBC311. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: ENEB355 or ENBC322.

Presents an introduction to the techniques for designing efficient computer algorithms and analyzing their complexity using the Python programming language. Students will gain insight into principles and data-structures useful in algorithm design. General topics include asymptotics, sorting and searching, hashing, algorithm design techniques, graph algorithms, and dynamic programming.

ESG1	Kyunghun Lee	Seats (Total: 20)
	W 5:00pm - 7:30pm	BLD4 5321
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC331 Applied Linear Systems and Differential Equations

(Perm req)

Prerequisite: Minimum grade of C- in MATH246; and minimum grade of C- in BIOE241 or approved prior study in Matlab. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE371 or ENBC331.

Applications of linear algebra and differential equations to bioengineering and biomolecular systems. Designed to instruct students to relate mathematical approaches in bioengineering to their physical systems. Examples will emphasize fluid mechanics, mass transfer, and physiological systems.

ESG1	Lan Ma	Seats (Total: 20)
	TuTh 11:30am - 12:45pm	BLD4 4321
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC332 Statistics, Data Analysis, and Data Visualization

(Perm req)

Prerequisite: Minimum grade of C- in MATH246; and minimum grade of C- in BIOE241 or approved prior study in Matlab. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE372, ENBC332 or STAT464.

Instructs students in the fundamentals of probability and statistics through examples in biological phenomenon and clinical data analysis. Data visualization strategies will also be covered.

ESG1	Bardia Yousefi	Seats (Total: 20)
	MW 12:00pm - 1:15pm	BLD4 3210
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC341 **Biomolecular Engineering Thermodynamics**

(Perm req)

Prerequisite: Minimum grade of C- in MATH246 and PHYS260. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE232, ENBC341 or CHBE301.

A quantitative introduction to thermodynamic analysis of biomolecular systems. The basic laws of thermodynamics will be introduced and explained through a series of examples related to biomolecular systems.

ESG1	Jarred Callura	Seats (Total: 20)
	TuTh 1:30pm - 2:45pm	BLD4 3335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC353 **Synthetic Biology**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI170 or BIOE120. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE461 or ENBC353.

Introduces students to the scientific foundation and concepts driving the fast-paced field of synthetic biology. This course aims to apply engineering principles, measurement science, and modern molecular biology to increase understanding of complex biological systems and to develop novel applications that address global challenges in health, manufacturing, energy, agriculture, and the environment. Students will explore the principles and applications of the field via in-depth analysis. The course will also address the societal issues of synthetic biology, and briefly examine interests to regulate research in this area.

ESG1	Jarred Callura	Seats (Total: 20)
	TuTh 11:30am - 12:45pm	BLD4 3335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC423 **Applied Computer Vision**

(Perm req)

Prerequisite: Minimum grade of C- in ENBC311 and ENBC312.

Introduction to the basics and modern deep learning models in the Artificial Intelligence field of computer vision. The course emphasizes applications of computer vision in medical imaging. Computer vision techniques will be demonstrated using software packages implementing bioimage informatics methods.

ESG1	Joe Chalfoun	Seats (Total: 20)
	TuTh 9:00am - 10:15am	BLD4 2335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC425 **Imaging and Image Processing**

(Perm req)

Prerequisite: Minimum grade of C- in ENBC332, ENBC311, and ENBC321. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in Biocomputational Engineering major.

Instructs students in the fundamentals of biomedical imaging and image processing methods through the physical principles behind major medical imaging modalities, including X-Ray, Computed Tomography (CT), and magnetic resonance imaging (MRI). This course is designed to instruct students in mathematical tools for extracting information from images. There will be real-world assignments and images, which aid in learning complex theories, applications, and coding libraries in a simple way.

ESG1	Bardia Yousefi	Seats (Total: 20)
	MW 2:30pm - 3:45pm	BLD4 4321
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC431 **Finite Element Analysis**

(Perm req)

Prerequisite: Minimum grade of C- in MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

An introduction to the theory, programming and application of the finite element method that is used to solve problems in engineering analysis and design. Modeling, analysis, and design using the FEA software SolidWorks. The objective of the course is to teach the fundamentals of the finite element method with emphasis on the underlying theory, assumption, and modeling issues as well as providing hands-on experience using finite element software to model, analyze, and design systems.

ESG1	Lan Ma	Seats (Total: 20)
	MW 11:45am - 1:00pm	BLD4 2335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENCE Engineering, Civil Fall 2023

ENCE100 **Introduction to Civil and Environmental Engineering**

An overview of the department of Civil and Environment Engineering. Students are introduced to the undergraduate curriculum and will be exposed to other undergraduate and graduate students at various points in their program. The course blends panel presentations by seniors and graduate students, faculty and practitioners with a project and book review to be performed by the students.

0101	Natasha Almeida e Andrade W 1:00pm - 1:50pm	Seats (Total: 110) CHM 1402

ENCE200 **Civil Engineering Graphics for Design and Construction**

(Perm req)

Prerequisite: ENES100, MATH141, and ENES102; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to the basic principles and fundamentals of civil design, plan interpretation, and plan creation. Development of the knowledge and skills to analyze existing sites, environmental features, and characteristics used to develop a site properly. Introduction of the use of Computer-Aided Drafting (CAD) software in the context of civil and environmental engineering design and applications.

0101	Frank White MW 2:00pm - 3:15pm	Seats (Total: 38) EGR 1156
0201	Frank White MW 3:30pm - 4:45pm	Seats (Total: 38) EGR 1156

ENCE201 **Engineering Information Processing**

(Perm req)

Prerequisite: ENES220 and MATH241; and permission of ENGR-Civil & Environmental Engineering department. Corequisite: MATH246. Credit only granted for: ENCE201 or ENCE203.

Exploration of algorithms for solving problems in several important areas of numerical computing: roots of equations; matrix algebra and the systems of linear equations; function approximation, numerical differentiation and integration; and ordinary differential equations. Issues of solution accuracy, robustness, and efficiency are also considered. Numerical techniques are presented in the context of engineering applications, and example problems are solved using a variety of computer-based tools (primarily MATLAB).

0101	Mark Austin MWF 2:00pm - 2:50pm	Seats (Total: 55) KEB 1200

ENCE205 **Biology for Civil and Environmental Engineers**

Prerequisite: MATH140 or equivalent. Restriction: Must be in the Civil Engineering program; or permission of the Civil and Environmental Engineering Department. Credit only granted for: BIOE120 or ENCE205.

Introduction to the functions and interactions of biological systems in civil and environmental engineering systems in the context of societal issues. The course includes an introduction to biotechnological principles from a quantitative perspective, modern experimental techniques in biotechnology and methods of data analysis. Roles for civil and environmental engineers in society seen from a biotechnological perspective, and the role of biotechnology in civil and environmental engineering will be elucidated. The role of biotechnology in other engineering disciplines will also be discussed.

0101	Birthe Kjellerup Shirtliff Tu 2:00pm - 3:40pm M 9:00am - 12:00pm	Seats (Total: 12) CSI 3120 EGR 0136	 Lab
0102	Birthe Kjellerup Shirtliff Tu 2:00pm - 3:40pm M 3:00pm - 6:00pm	Seats (Total: 12) CSI 3120 EGR 0136	 Lab

ENCE215 **Engineering for Sustainability**

(Perm req)

Prerequisite: CHEM135; or students who have taken courses with comparable content may contact the department; and permission of ENGR-Civil & Environmental Engineering Department.

Engineers have a key role to play in planning, designing, building, and ensuring a sustainable future. In this class, a problem-based approach is used to examine fundamentally-based analyses and approaches for engineering as sustainable society, with a focus on sustainable use of energy and materials, sustainable infrastructure solutions, atmospheric sustainability and sustainable water supply, and human population growth and resource consumption and its implications for sustainability.

0201	Natasha Almeida e Andrade TuTh 9:30am - 10:45am	Seats (Total: 43) EGR 3106	

ENCE300 **Fundamentals of Engineering Materials**

(Perm req)

Prerequisite: ENES220; and permission of ENGR-Civil & Environmental Engineering department.

Behavior, physical, mechanical and chemical properties, design and performance of civil engineering materials, including aggregates, cement, concrete, asphalt binders and mixtures, plastics and geosynthetics, timber, metals and alloys. Modified and advanced highway materials (polymer and rubber modified mixtures, high performance concrete, composites, smart materials). Laboratory testing with hands-on experience on aggregates, Portland cement concrete, asphalt mixtures, timber and metals as per SUPERAVE, ACI design methods, and ASTM standards and specifications.

Restricted to students in the College of Engineering.

0101	Dimitrios Goulias Tu 12:30pm - 2:30pm Th 10:30am - 12:30pm	Seats (Total: 18) JMP 3201 EGL 0120	 Lab
0102	Dimitrios Goulias Tu 12:30pm - 2:30pm Th 12:30pm - 2:30pm	Seats (Total: 18) JMP 3201 EGL 0120	 Lab
0103	Dimitrios Goulias Tu 12:30pm - 2:30pm Th 2:30pm - 4:30pm	Seats (Total: 18) JMP 3201 EGL 0120	 Lab

ENCE302 **Probability and Statistics for Civil and Environmental Engineers**

(Perm req)

Prerequisite: MATH246 and ENCE201; and permission of ENGR-Civil & Environmental Engineering department.

Statistics is the science of data. Civil Engineers must often make decisions based on incomplete, variable or uncertain information. In addition, modern methods of design and analysis need to account for variability in natural, engineered and human systems. After successful completion of this class, a student should have facility and familiarity with established basic techniques for managing data, modeling variability and uncertainty, communicating about data and decisions, and supporting or defending a decision or judgment based on uncertain or incomplete data.

Restricted to students in the College of Engineering.

0101	Michelle Bensi, Allison Reilly MWF 11:00am - 11:50am	Seats (Total: 35) PHY 4221
0201	Michelle Bensi MWF 2:00pm - 2:50pm	Seats (Total: 35) AJC 2132

ENCE305 **Fundamentals of Engineering Fluids**

(Perm req)

Prerequisite: ENES220, PHYS260, and PHYS261; and permission of ENGR-Civil & Environmental Engineering department. Credit only granted for: BIOE331, ENCE305, ENFP300, or ENME331.

The theoretical bases for fluid statics and dynamics, including the conservation of mass, energy and momentum. Modeling of hydraulic systems are introduced. Emphasis on pipe flow and open-channel hydraulics, with real-world applications.

0101	Michael Galczynski MWF 9:00am - 9:50am	Seats (Total: 35) EGR 3106

0102	Barton Forman MWF 10:00am - 10:50am	Seats (Total: 35) EGR 3106

ENCE310 **Introduction to Environmental Engineering**

(Perm req)

Prerequisite: PHYS260 and ENCE215; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to the physical, chemical and biological systems relating to the quality of water, land and air environments. Fundamental principles will be emphasized, current environmental pollution problems will be examined and methods of pollution abatement discussed.

0101	Allen Davis TuTh 8:00am - 9:15am	Seats (Total: 66) PHY 1201

ENCE320 **Introduction to Project Management**

(Perm req)

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A James Clark School of Engineering. Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453.

Principles and techniques of managing engineering projects from the initiation, through planning, execution, monitoring & control, then finally closeout.

Restricted to students in the College of Engineering.

0101	Miroslaw Skibniewski Th 5:00pm - 7:30pm	Seats (Total: 75) CSI 2117

ENCE325 **Introduction to Construction Project Management**

(Perm req)

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in a major in ARCH-School of Architecture, Planning, & Preservation; or must be in the Construction Project Management minor. And permission of ENGR-Civil & Environmental Engineering department. Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453.

Learn the basic topics in sourcing, planning, financing, designing, contracting, constructing and operating buildings and other facilities in the built infrastructure. Topics include construction economics, design constructability reviews, construction process planning, contracts and procurement strategies, project scheduling and resource utilization, site layout planning, project cost and quality controls, temporary structures, environmental sustainability, project handover procedures, facility operation and management, IT-based tools for construction project and resource management.

0101	Stephen Wooldridge Th 5:00pm - 7:30pm	Seats (Total: 55) KEB 1200

ENCE340 **Fundamentals of Geotechnical Engineering**

(Perm req)

Prerequisite: ENES220; and permission of ENGR-Civil & Environmental Engineering department.

Introductory study of soils in civil engineering. Soil origin, phase relationships and classification schemes. Soil hydraulics: capillary, effective stress, permeability and seepage considerations. Basic stress distribution theories and soil consolidation-settlement analysis. Integration of shear strength evaluation with slope stability analysis. If time permits, topics such as applications in geoenvironmental engineering will be covered.

0101	Ahmet Aydilek TuTh 9:30am - 10:45am	Seats (Total: 57) ATL 1113

ENCE353 **Introduction to Structural Analysis**

(Perm req)

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department; and (MATH246 and ENES220).

The basic tools of structural analysis and design. Design loads. Equilibrium of external and internal forces. Shear and moment diagrams in beams and frames. Truss analysis. Influence line diagrams. The slope-deflection method and method of consistent deformation. Matrix stiffness methods for beams, frames and trusses.

Restricted to students in the College of Engineering.

0101	Mark Austin MWF 9:00am - 9:50am	Seats (Total: 60) KEB 1200

ENCE360 **Analysis of Civil Engineering Systems**

(Perm req)

Prerequisite: ENCE201 and MATH140; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to systems approach and systems analysis in civil and environmental engineering. Introduction to systems analysis tools that facilitate engineering management decision making including optimization and computer simulation. Introduction to linear and nonlinear mathematical optimization including linear and integer programming, elementary nonlinear programming and dynamic programming.

0101	Ali Haghani TuTh 9:30am - 10:45am	Seats (Total: 36) EGR 1156	
0102	Ali Haghani TuTh 11:00am - 12:15pm	Seats (Total: 36) EGR 1156	

ENCE370 **Introduction to Transportation Engineering and Planning**

(Perm req)

Prerequisite: ENCE201, PHYS260, and PHYS261; and permission of ENGR-Civil & Environmental Engineering department.

Engineering problems of transportation by highways, airways, pipelines, waterways, and railways. Transportation modes and technologies, vehicle dynamics, basic facility design, traffic stream models, capacity analysis, transportation planning, evaluation and choice, and network analysis.

Restricted to students in the College of Engineering.

0101	Cinzia Cirillo MWF 1:00pm - 1:50pm	Seats (Total: 60) KEB 1200	

ENCE411 **Environmental Engineering Science**

(Perm req)

Prerequisite: ENCE310; and permission of ENGR-Civil & Environmental Engineering department.

Introduces the analytical techniques available to assess performance of engineering processes as they relate to water, soil, and air treatment and quality. The basic principles of environmental management, economics of waste treatment, by-product reutilization, and energy cycles are introduced and discussed. Alternative technologies are introduced and evaluated mostly by assessing their potential to reduce waste, minimize energy use, and promote sustainability. Students' activities include, a weekly lab to provide hands-on experience with environmental quality measurements and treatment techniques; on-site visits to regional industries that undertake sustainable practices; and a final research project where experimental design and laboratory techniques are used to assess interactions between technologies and natural systems and their potential for reducing environmental impacts.

0101	Alba Torrents Capdevila TuTh 11:00am - 11:50am W 10:00am - 1:00pm	Seats (Total: 12) EGR 3114 EGR 0136	 Lab
0102	Alba Torrents Capdevila TuTh 11:00am - 11:50am W 2:00pm - 5:00pm	Seats (Total: 12) EGR 3114 EGR 0136	 Lab

ENCE422 **Project Cost Accounting and Economics**

(Perm req)

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor.

Learn: the fundamentals of accounting; project cost accounting principles as they apply to project management; project cost accounting; and the fundamentals of engineering economics.Topics include: project feasibility analysis; reading and analyzing financial statements; cash management; cash flow analysis; depreciation and taxes; and impact on profitability; the principles of activity based costing; net present value analysis; the framework for project performance measurement, cost performance indices, and earned value analysis.

0101	Qingbin Cui M 5:00pm - 7:30pm	Seats (Total: 60) EGR 0108

ENCE423 Project Planning, Estimating & Scheduling

(Perm req)

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor. And permission of ENGR-Civil & Environmental Engineering department.

Learn the fundamentals of project planning, estimating, and scheduling. Understand the concepts of planning; to reduce uncertainty, improve efficiency of the operation, to set and meet objectives, and to provide a basis for monitoring and controlling the work. Be introduced to: the concepts of resource definition, assignment and management, and; the basics of project estimating (pricing) methods including global pricing strategies, types of estimates, pricing processes, overhead and profit, and project financing.Learn the basics of project scheduling including; bar charts, network-based methodologies, and linear scheduling techniques. Emphasis is placed on Critical Path Method (CPM) scheduling, a network based methodology. Be exposed to the use of scheduling software and will actually develop a CPM schedule for an actual construction project as part of a semester project.

Restricted to students in the College of Engineering.

0101	Kenneth O'Connell Tu 5:00pm - 7:30pm	Seats (Total: 40) EGR 0108

ENCE424 Communication for Project Managers

(Perm req)

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management minor; or must be in the Project Management minor. Jointly offered with: ENCE614. Credit only granted for: ENCE424 or ENCE614.

Learn the fundamentals of communications for project managers. Emphasis is on interpersonal and group communications; through voice, electronic, and written messages; project cycle and reports and presentations during this cycle; and communications for employment.

0101	Shana Webster-Trotman Tu 5:00pm - 7:30pm	Seats (Total: 25) AJC 2119

ENCE426 **Construction Documentation and BIM Applications in Engineering and Construction**

(Perm req)

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor.

Learn the basics of construction documentation methods, with particular emphasis on Building Information Modeling (BIM). Topics include: the fundamentals of assembly, coordination, and maintenance of construction documents and implementation of BIM techniques in the design and construction processes, and; a review of Autodesk, Revit, and Navisworks and other leading BIM software. Lectures from project management faculty supplemented by guest lecturers from the construction industry.

0101	Kiley Wilfong Cullen Tu 3:30pm - 6:00pm	Seats (Total: 40) EGR 1156
0201	Kiley Wilfong Cullen Tu 6:30pm - 9:00pm	Seats (Total: 40) EGR 1156

ENCE432 **Ground Water Hydrology**

(Perm req)

Prerequisite: ENCE305; and permission of ENGR-Civil & Environmental Engineering department.

Concepts related to the development of the ground water resources, hydrology, hydrodynamics of flow through porous media, hydraulics of wells and basin-wide ground water development. Fundamentals of ground water pollution are introduced.

Restricted to students in the College of Engineering.

0101	Kaye Brubaker MWF 9:00am - 9:50am	Seats (Total: 42) CHE 2136

ENCE441 **Foundation Design**

(Perm req)

Prerequisite: ENCE340; and permission of ENGR-Civil & Environmental Engineering department.

Critical review of classical lateral earth pressure theories, analysis of retaining walls and reinforced earth walls, subsurface explorations, bearing capacity and settlement of shallow foundations, design of deep foundations that includes both pile foundations and drilled shafts.

Restricted to students in the College of Engineering.

0101	Mohamed Aggour TuTh 11:00am - 12:15pm	Seats (Total: 70) EGR 0108	

ENCE444 **Experimental Methods in Geotechnical Structural Engineering**

(Perm req)

Prerequisite: ENCE353 and ENCE340; and permission of ENGR-Civil & Environmental Engineering department.

In the geotechnical engineering part of the course, major soils testing and their interpretation including classification, compaction, strength, and compressibility will be undertaken. The structural engineering part of this course covers test planning, loading apparatus, instrumentation, data acquisition and data analysis, as well as basic aspects of structural testing techniques and shake-table test.

0101	Yunfeng Zhang, Ahmet Aydilek Tu 12:30pm - 1:30pm W 1:00pm - 4:00pm	Seats (Total: 15) EGR 3111 EGL 0120	 Lab
0201	Ahmet Aydilek, Yunfeng Zhang Tu 12:30pm - 1:30pm W 1:00pm - 4:00pm	Seats (Total: 15) WDS 1114 EGL 0106	 Lab

ENCE454 **Design of Concrete Structures**

(Perm req)

Prerequisite: ENCE353; and permission of ENGR-Civil & Environmental Engineering department. Formerly: ENCE451.

Combined bending and compression, development and anchorage of reinforcement, deflections, design of slabs including one-way and two-way, design of footings, retaining walls, introduction to prestressed concrete, design of multi-story buildings.

0101	Peter Chang MWF 11:00am - 11:50am	Seats (Total: 30) EGR 1104	
0201	Peter Chang MWF 10:00am - 10:50am	Seats (Total: 30) EGR 2154	

ENCE465 **Civil and Environmental Engineering Design I**

Prerequisite: Permission of the ENGR-Civil & Environmental Engineering Department.

Provides students an opportunity to develop their skills in project scoping and the development of design proposals. The fundamental concepts are taught using analytical and computational methods, which are necessary for designing and analyzing the sustainability of various engineering processes and technologies. The course provides the methods and skills for understanding the human-environment-infrastructure interactions needed to develop a design proposal.

0101	Deb Niemeier	Seats (Total: 120)
	Th 12:30pm - 1:20pm	EGR 1202

ENCE470 **Highway Engineering**

(Perm req)

Prerequisite: ENCE302 and ENCE370; and permission of ENGR-Civil & Environmental Engineering department.

Highway location and design, highway engineering economics, traffic engineering, traffic measurement devices and technologies. Includes discussion of technological advances in traffic flow and capacity, such as signal systems, corridor control, automatic driver information, incident detection and autonomous vehicle operation.

Restricted to students in the College of Engineering.

0101	ShiaauLir Wang	Seats (Total: 40)
	MWF 10:00am - 10:50am	EGR 1104

ENCE489 **Special Problems in Civil Engineering**

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Contact department for information to register for this course.

ENCE489L **Special Problems in Civil Engineering; Risk Analysis in Engineering and Economics**

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Cross-listed with ENCE620, ENRE648M, and ENSE698R. Credit only granted for ENCE489L, ENCE620, ENRE648M, or ENSE698R.

0101	Bilal Ayyub	Seats (Total: 20)
	W 2:00pm - 4:40pm	CHE 2140

ENCE602 **Project Procurement Management**

Fundamental concepts and techniques for project acquisition and procurement are presented. Students are introduced to the PMBOK Guide six-step procurement process and expected to develop an in-depth understanding of project evaluation, planning, financing, contracting, negotiation, and procurement execution. It will also cover emerging methods, principles, and practices in infrastructure project procurement, including Public-Private Partnerships, Carbon project procurement, and Clean Development Mechanism.

0101	Qingbin Cui	Seats (Total: 17)
	M 1:00pm - 3:40pm	JMP 2120

ENCE614 **Communications for Project Managers**

(Perm req)

Restriction: Must be enrolled in the A. James Clark School of Engineering or the School of Architecture. Jointly offered with: ENCE424. Credit only granted for: ENCE424 or ENCE614.

Learn the fundamentals of communications for project managers. Emphasis is on interpersonal and group communications; through voice, electronic, and written messages; project cycle and reports and presentations during this cycle; and communications for employment.

0101	Shana Webster-Trotman	Seats (Total: 5)
	Tu 5:00pm - 7:30pm	AJC 2119

ENCE620 **Risk Analysis in Engineering and Economics**

Prerequisite: ENCE302. Credit only granted for: ENCE489L, ENCE620, ENRE648M, or ENSE698R.

Covers quantitative risk analysis and management using probability theory and statistics starting with system definition, hazard and scenario identification, likelihood estimation and consequence assessment, and finishes with economic valuation and microeconomics for informing decision making. It covers the topics: uncertainty, risk, knowledge and ignorance related definitions; natural and anthropogenic hazards and fundamental risk methods; system abstraction and associated complexities; analytical and empirical reliability and resilience estimation for components and systems; consequence, severity and loss analysis and accumulation including property and life; economic valuation; risk-cost-benefit tradeoffs and analysis; microeconomics and socioeconomics in risk analysis for informing decisions; risk management, acceptance, tolerance and finance; data needs and sources; expert-opinion elicitation; applications in engineering, sciences and economics.

Cross-listed with ENCE489L, ENRE648M, and ENSE698R. Credit only granted for ENCE489L, ENCE620, ENRE648M, or ENSE698R.

0101	Bilal Ayyub	Seats (Total: 20)
	W 2:00pm - 4:40pm	CHE 2140

ENCE622 **Construction Automation & Robotics**

Covers advanced technologies leading to redesign and partial or full automation of selected construction processes utilizing industrial robotics. Lectures and presentations will cover topics such as basic robotic technology (robot kinematics and dynamics, industrial manipulators, mobility bases, end effectors, sensors, control systems, and robot task programming), design of automated construction processes, selection of means and methods for automated construction processes, robot ergonomics and safety, calculation of costs and benefits of construction robots in selected applications, engineering and economic feasibility of automation and robotics in the construction industry.

PM01	Miroslaw Skibniewski	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Weekly video conference: TBA.	

ENCE627 **Project Risk Management**

Restriction: Must not have completed ENCE627.

Introduction to identifying, analyzing, assessing, and managing risks inherent to engineering projects. Includes: probability modeling, choice and value theory, schedule and cost risk, risk mitigation and transfer, and contract considerations of project risk. Examples are drawn from construction, software development, systems integration, and other large engineering projects; and cover probability basics, subjective probability, statistical data analysis, introduction to decision theory, Monte Carlo simulation, value of information, and risk-based decision making.

PM01	Gregory Baecher	Seats (Total: 40)
	Class time/details on ELMs	ONLINE
	Weekly video conferences: Thursday 7:00am-8:00am or by arrangement with the instructor.	

ENCE650 **Process Dynamics in Environmental Systems**

Formerly: ENCE636.

The fundamentals of heterogeneous equilibria, rates of environmental reactions, and flow and material transport or presented. Applications of these principles will be presented to small and large scale environmental problems involving liquid, gas, and solid phases. Both natural and engineered environmental systems will be examined.

0101	Allen Davis	Seats (Total: 20)
	TuTh 9:30am - 10:45am	EGR 2116

ENCE651 **Chemistry of Natural Waters**

Credit only granted for: ENCE633 or ENCE651. Formerly: ENCE633.

Application of principles from chemical thermodynamics and kinetics to the study and interpretation of the chemical composition of natural waters is rationalized by considering metal ion solubility controls, pH, carbonate equilibria, adsorption reactions, redox reactions and the kinetics of oxygenation reactions which occur in natural water environments.

Cross-listed with MEES698W. Credit only granted for ENCE651 or MEES698W.

0101	Alba Torrents Capdevila TuTh 8:00am - 9:15am	Seats (Total: 20) EGR 1102

ENCE662 **Introduction to Project Management**

Introduction to project management including: overview and concepts of project management (principles, body of knowledge, strategies); planning successful projects (defining, specifying, delivery options, scheduling, budgeting); implementing (organizing the team, work assignments, team building, effective leadership); executing (performance measurement, maintaining the schedule, adjustments/mid-course corrections, record keeping, status reporting, communications, managing conflict, time management); and closeout(performance measurement, maintaining the schedule, adjustments/mid-course corrections, record keeping, status reporting, communications, managing conflict, time management).

0101	John Johnson, Gregory Baecher W 4:00pm - 6:40pm	Seats (Total: 36) ATL 1114
PM01	John Johnson, Gregory Baecher W 4:00pm - 6:40pm	Seats (Total: 24) ONLINE

ENCE664 **Legal Aspects of Engineering Design and Construction**

Examines ways in which the legal system affects the design and construction process. Focuses on contract types and the relationships between the parties in different delivery systems. Covers basics of procurement protocols along with negotiating techniques and strategies. Topics include contract law, the relationships between the parties, tort and negligence law, and the statutory principles affecting construction.

Weekly video conference after 7:50 p.m.

PM01	Thomas Barham, Mark Groff, Thomas Powell Class time/details on ELMs *Weekly video conference: Tuesday 8:00-9:30PM.*	Seats (Total: 30) ONLINE

ENCE665 **Management of Project Teams**

Experience has shown that really excellent project managers are not only technically competent but that they have above average skills in human relations and communications. The course will prepare project managers to optimize the utilization of their most important resource: people. Relying primarily on a wide range of research and experience in the Project Team, this course will help guide project managers in building the other skills needed to be truly successful in the competitive Project Team.

0101	Jocelyn Davis Th 4:00pm - 6:40pm	Seats (Total: 18) AJC 2119

PM01	Jocelyn Davis	Seats (Total: 18)
	Th 4:00pm - 6:40pm	ONLINE

ENCE666 **Cost Engineering and Control**

Analytical techniques to estimate and control project costs, including site investigation, quantity takeoff, work analysis, and bid preparation. Systematic cost control as related to job production and historical data. Includes the fundamentals of different types of cost estimating, the appropriate use of each, and examination of popular software. This course is designed to help students develop the ability to utilize techniques of cost estimating, cost and schedule control and project management as they apply to engineering and construction work. Students will understand why it is crucial to understand the various types of cost estimating and the appropriate use of each, activity-based costing, conceptual estimating and budgeting, unit cost estimating, parametric estimating, detailed estimating, learning curves and progress functions.

PM01	Neil Schulman	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Weekly video conferences: Tuesday 1:00-3:40pm.	

ENCE670 **Highway Traffic Characteristics and Measurements**

The study of the fundamental traits and behavior patterns of road users and their vehicles in traffic. The basic characteristics of the pedestrian, the driver, the vehicle, traffic volume and speed, stream flow and intersection operation, parking, and accidents.

0101	Gang-Len Chang	Seats (Total: 29)
	Th 5:00pm - 7:45pm	MTH 0405

ENCE672 **Regional Transportation Planning**

Factors involved and the components of the process for planning statewide and regional transportation systems, encompassing all modes. Transportation planning studies, statewide traffic models, investment models, programming and scheduling.

0101	Paul Schonfeld	Seats (Total: 29)
	Tu 5:00pm - 7:40pm	EGR 1104

ENCE688J **Advanced Topics in Civil Engineering; Data Analysis in the Built Environment: An Introduction to R**

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

0101	Deb Niemeier	Seats (Total: 15)
	Tu 10:00am - 12:30pm	ATL 2316

ENCE688N **Advanced Topics in Civil Engineering; Railway Engineering**

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

0101	Nii O Attoh-Okine	Seats (Total: 20)
	Th 5:00pm - 7:40pm	EGR 1110

ENCE688O **Advanced Topics in Civil Engineering**

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

Contact department for information to register for this course.

ENCE688T **Advanced Topics in Civil Engineering; Disaster Resilience Seminar**

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

This seminar with address varied topics in identifying, analyzing, assessing, and managing engineered systems resilient to natural, anthropogenic, and other hazards. This seminar series comprises guest lectures and internal faculty and student presentations on topics related to disaster resilience. Examples are drawn from foundational concepts; hazard science; planning, engineering, and design; risk and resilience assessment; and implementation.

0101	Michelle Bensi	Seats (Total: 25)
	W 9:00am - 9:50am	PHY 2211

ENCE688U **Advanced Topics in Civil Engineering; Digital Twins for Transportation Systems**

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

This project-oriented course will introduce the methodology of digital twins for transportation systems planning and monitoring. Students will work with traditional and emerging sources of data, will learn techniques for population synthesis, and the basics of discrete choice analysis for travel behavior modeling. Small demonstration projects will be developed using MATSim an open-source framework for implementing large-scale agent-based transport simulations.

0101	Cinzia Cirillo	Seats (Total: 20)
	W 3:00pm - 5:30pm	PHY 2211

ENCE688V **Advanced Topics in Civil Engineering; Smart Mobility and Connected Communities**

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

In most recent years, advances in Information science, communication technology, and data analytics have brought significant changes to traditional mobility services. This has resulted in increasing interest from both technology vendors and public authorities in the transition of transportation towards so-called "Smart Mobility". The course will explore strategies to develop smart mobility within the context of integrating civil infrastructures, advanced technologies, and cyberinfrastructures. It will also help students gain a deep understanding of the nature of disruptive innovations in smart mobility and connected communities.

0101	Xianfeng Yang	Seats (Total: 20)
	Tu 1:00pm - 3:40pm	PLS 1168

ENCE688W **Advanced Topics in Civil Engineering; Design of Timber Structures**

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

This course will expose students to the design of timber structures covering the following topics: Analysis and design of solid and glue laminated timber members and structural systems including tension members, beams (flexural members), columns, beam-columns, floor diaphragms, shear walls, and connections. This course focuses on medium-rise wood buildings constructed of cross-laminated timber (CLT) members. Project based learning approach will be used. The current version of the National Design Specification (NDS) for Wood Construction with LRFD design method is used.

0101	Yunfeng Zhang	Seats (Total: 25)
	W 5:00pm - 7:30pm	EGR 1102

ENCE689 **Seminar**

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCE713 **Concrete Structures I**

Formerly: ENCE753.

The behavior and strength of reinforced concrete members under combined loadings, including the effects of creep, shrinkage and temperature. Mechanisms of shear resistance and design procedures for bond, shear and diagonal tension. Elastic and ultimate strength analysis and design of slabs. Columns in multistory frames. Applications to reinforced concrete structures.

0101	Santiago Bonetti	Seats (Total: 30)
	Tu 5:00pm - 7:40pm	EGR 0135

ENCE743 **Soil Dynamics and Earthquake Engineering**

Credit only granted for: ENCE642 or ENCE743. Formerly: ENCE642.

Review of theory of vibration and wave propagation in elastic media. Field and laboratory methods for determining dynamic soil properties. Analysis and design of soil-foundation systems subjected to machinery generated vibrations and methods of foundation isolation. Earthquake causes, magnitude and intensity, seismic hazard evaluation, NEHRP site classification, site response analyses and ground motion amplification, liquefaction and response of earth structures.

0101	Mohamed Aggour	Seats (Total: 25)
	Th 5:00pm - 7:30pm	EGR 3102

ENCE799 **Master's Thesis Research**

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCE898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENCE899 **Doctoral Dissertation Research**

(Perm req)

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCO Engineering, Cooperative Education — Fall 2023

ENCO099 **Co-Op/Intern Work Experience**

(Perm req)

Participation in a cooperative education (co-op) or internship program enables students to apply the theories that they have learned in their traditional classes with paid, supervised, career-related work experience that develops technical and professional work skills. Contact the Engineering Co-op & Career Services Office.

If dropping course, see Withdrawal and Refund of Fees - Special Refund Deadlines in the Financial Information section of the Schedule of Classes.

0101	Lizzy Solovey, Veronica Perrigan	Seats (Total: 200)
	Contact instructor or department for details.	

ENEB Cyber-Physical Systems Engineering — Fall 2023

ENEB302 **Analog Circuits**

(Perm req)

Prerequisite: Minimum grade of C- in PHYS260 and PHYS261; and 1 course with a minimum grade of C- from (MATH246, MATH241, MATH240); and permission from the Cyber-Physical Systems Engineering program required. Restriction: Must be in the Cyber-Physical Systems Engineering program.

Foundations of circuits, focusing on applications including signal amplification, power amplification, instrumentation and filters. Fundamental concepts of analog circuits including analysis methods in time and complex domains, with emphasis on circuit topologies relevant in embedded systems. Intensive application of simulations and hands-on laboratory exercises.

ESG1	Wesley Lawson	Seats (Total: 20)	
	M 10:00am - 12:30pm	BLD4 5321	
	Tu 3:00pm - 5:50pm	BLD4 5202	Lab
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB340 **Intermediate Programming Concepts and Applications for Embedded Systems**

(Perm req)

Prerequisite: Completion of approved introductory programming course with a minimum grade of a "C-"; and permission of the Cyber-Physical Systems Engineering program required. Restriction: Must be in the Cyber-Physical Systems Engineering program.

Principles of programming for embedded systems development. Includes principles of software development in Unix, C and other high level languages, input/output, data types and variables, operators and expressions, program selection, repetition, functions, arrays, strings, introduction to algorithms, software projects, debugging, documentation. Includes hands-on applications in microprocessor environments.

ESG1	Nestor Michael Tiglao	Seats (Total: 20)	
	W 9:30am - 11:10am	BLD4 5321	
	Th 10:00am - 12:50pm	BLD4 3202	Lab
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB341 **Introduction to Internet of Things**

(Perm req)

Prerequisite: Permission from the Cyber-Physical Systems Engineering program. Restriction: Must be in the Cyber-Physical Systems Engineering program.

An introduction to the foundations of Internet of Things (IoT), including IoT devices, communications, connection considerations, back-end services/applications, and business models. This course looks at the IoTs as the general theme of physical/real-world things becoming increasingly visible and actionable via Internet and Web technologies. It also covers networking protocols and gateways, security and privacy, data analytics and cloud computing platforms.

ESG1	Nestor Michael Tiglao	Seats (Total: 20)	
	MW 4:00pm - 5:15pm	BLD4 3305	
	Tu 12:50pm - 2:50pm	BLD4 3202	Lab
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB344 **Digital Logic Design for Embedded Systems**

(Perm req)

Corequisite: ENEB340; and permission from the Cyber-Physical Systems Engineering program. Restriction: Must be in the Cyber-Physical Systems Engineering program.

Hands on approach on foundations of digital logic for embedded systems applications; including input/output, logic gates, Karnaugh maps, latches, flip-flops and state-machines. This course also covers design and analysis of synchronous sequential systems, implementation with PLA's, multiplexers, decoders, encoders, binary arithmetic units such as adders and subtractors, conversions between decimal and arbitrary radix numbers, especially octal, hexadecimal, and binary representations, radix and diminished radix arithmetic, and character codes.

ESG1	Jerry Wu	Seats (Total: 20)	
	M 1:20pm - 3:50pm	BLD4 5321	
	W 12:00pm - 3:00pm	BLD4 3202	Lab
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB346 **Linear Algebra for Machine Learning Applications**

(Perm req)

Prerequisite: MATH140. Restriction: Must be in the Cyber-Physical Systems Engineering program and must receive permission from the Cyber-Physical Systems Engineering program.

Foundations of linear algebra for machine learning and data science applications with emphasis on implementing machine learning data science algorithms in a computer programming environment with linear algebra software tools and libraries as this course aims to provide a hands-on experience and learning environment for students. Students will learn the fundamental concepts in linear algebra that are directly relevant to machine learning and big data modeling and computations. These include vector and matrix operations, determinants, factorization methods, principal component analysis, eigenvalues, and singular value decomposition.

ESG1	Nestor Michael Tiglao	Seats (Total: 20)	
	Th 2:45pm - 5:15pm	BLD4 5321	
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB354 **Discrete Mathematics for Information Technology**

(Perm req)

Prerequisite: Minimum grade of C- in MATH141. Restriction: Must be in the Cyber-Physical Systems Engineering program.

Foundations of discrete mathematics for information technology and embedded computing. Topics include sets, relations, functions and algorithms, proof techniques and induction, number theory, counting and combinatorics, and Graph theory.

ESG1	Yavuz Oruc	Seats (Total: 20)	
	Tu 9:30am - 12:00pm	ONLINE	
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB408A **Capstone Design Lab; Capstone Design Lab I**

This course is the first of a two-semester sequence of capstone design laboratory experiences required for Cyber-Physical Systems Engineering students. Students will learn the principles of design, project planning, and project management. They will develop an ability to apply engineering solutions considering public health, safety, and welfare. Students will develop a consciousness of ethical and professional responsibilities and recognition of global, cultural, social, environmental, and economic factors in the design process. Students will also develop an ability to communicate in written and oral forms and to function effectively on a team. Projects will involve hardware, including a combination of off-the-shelf and custom-made components supported by hardware descriptive language software. The projects meet specific design challenges with applications in industry, healthcare, transportation, environmental sensing, cyber-security, and machine learning.

ESG1	Nestor Michael Tiglao	Seats (Total: 20)	
	MW 12:00pm - 12:50pm	BLD4 3335	
	W 1:00pm - 4:00pm	BLD4 5202	Lab
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB444 **Operating Systems for Embedded Systems**

(Perm req)

Prerequisite: Minimum grade of C- in ENEB340 and ENEB344; and permission from the Cyber-Physical Systems Engineering program. Restriction: Must be in the Cyber-Physical Systems Engineering program.

Theory, design, implementation and analysis of low-resource computer operating systems for IoT applications. Through classroom lectures, homework, and projects, students learn the fundamentals of concurrency, process management, interprocess communication and synchronization, job scheduling algorithms, memory management, input-output devices, file systems, and real-time operating systems. Optional topics may include communications protocols and computer security.

ESG1	Manoj Franklin	Seats (Total: 20)	
	Th 10:00am - 12:30pm	ONLINE	
	Th 12:40pm - 1:30pm	ONLINE	Discussion
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB454 **Embedded Systems**

(Perm req)

Prerequisite: Minimum grade of C- in ENEB353; and permission from the Cyber-Physical Systems Engineering program. Restriction: Must be in the Cyber-Physical Systems Engineering program.

This course will provide students with the essential knowledge base that will enable them to tackle complex problems encountered in embedded systems design. The course will provide an overview of associated hardware components and software methodologies as well as the tools used in the development of modern embedded systems. Student will be exposed to the theoretical foundations which will be reinforced with carefully selected hands-on laboratory exercises, thereby getting a sense of how the theoretical concepts connect with the real-world embedded systems applications.

ESG1	Jerry Wu M 4:00pm - 6:30pm W 9:30am - 11:30am	Seats (Total: 20) BLD4 3321 BLD4 3202	 Lab
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEE Electrical & Computer Engineering Fall 2023

ENEE101 **Introduction to Electrical & Computer Engineering**

(Perm req)

Corequisite: MATH140. And corequisite: ENEE140 or CMSC131; or a score of 5 on the A Java AP exam; or a score of 4 or 5 on the AB Java AP exam; or satisfactory performance on the department's placement exam. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; and students cannot enroll in ENEE101 and ENES100 in the same semester.

An exploration of topics within Electrical & Computer Engineering (ECE). Students will be introduced to key elements of both the Electrical Engineering and Computer Engineering curriculum, including: circuits, computing systems and software, communications and controls, electrodynamics and waves, microelectronics, signal processing, and power systems.

0101	Julius Goldhar F 12:00pm - 12:50pm MW 8:00am - 9:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0102	Julius Goldhar F 12:00pm - 12:50pm MW 10:00am - 11:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0103	Julius Goldhar F 12:00pm - 12:50pm MW 12:00pm - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab

0104	Julius Goldhar F 12:00pm - 12:50pm MW 2:00pm - 3:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0105	Julius Goldhar F 12:00pm - 12:50pm MW 4:00pm - 5:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0106	Julius Goldhar F 12:00pm - 12:50pm TuTh 8:00am - 9:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0107	Julius Goldhar F 12:00pm - 12:50pm TuTh 10:00am - 11:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0108	Julius Goldhar F 12:00pm - 12:50pm TuTh 12:00pm - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0109	Julius Goldhar F 12:00pm - 12:50pm TuTh 2:00pm - 3:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0110	Julius Goldhar F 12:00pm - 12:50pm TuTh 4:00pm - 5:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0111	Julius Goldhar F 12:00pm - 12:50pm TuTh 4:00pm - 5:50pm	Seats (Total: 12) EGR 1202 AVW 1334	 Lab

ENEE140 **Introduction to Programming Concepts for Engineers**

(Perm req)

Prerequisite: Permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program; or must be in Engineering: Materials Science program.

Introduction to the programming environment: editing, compiling, UNIX, data types and variable scope; program selection, formatted/unformatted input/output, repetition, functions, arrays and strings.

0101	Tudor Dumitras Tu 9:30am - 10:45am WF 3:00pm - 3:50pm	Seats (Total: 15) KEB 1110 AVW 2446	Discussion
0102	Tudor Dumitras Tu 9:30am - 10:45am WF 2:00pm - 2:50pm	Seats (Total: 15) KEB 1110 AVW 2446	Discussion
0104	Tudor Dumitras Tu 9:30am - 10:45am WF 11:00am - 11:50am	Seats (Total: 15) KEB 1110 AVW 2446	Discussion
0105	Tudor Dumitras Tu 9:30am - 10:45am WF 9:00am - 9:50am	Seats (Total: 15) KEB 1110 AVW 2446	Discussion
0106	Tudor Dumitras Tu 9:30am - 10:45am WF 8:00am - 8:50am	Seats (Total: 15) KEB 1110 AVW 2446	Discussion

ENEE150 **Intermediate Programming Concepts for Engineers**

(Perm req)

Prerequisite: Permission of ENGR-Electrical & Computer Engineering department. And ENEE140 or CMSC131; or score of 5 on the A Java AP exam; or score of 4 or 5 on the AB Java AP exam; or satisfactory performance on the department's placement exam. Corequisite: MATH140. Restriction: Must be in Engineering: Electrical program.

Advanced programming concepts: coding conventions and style; pointers; dynamic memory allocation and data structures; linked lists; graphs; abstract data types; object-oriented design. There will be team-based software projects and group presentations.

0101	Mamadou Wade TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 12) EGR 1108 AVW 1454	Discussion
0102	Mamadou Wade TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 12) EGR 1108 AVW 1454	Discussion
0103	Mamadou Wade TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 12) EGR 1108 AVW 1454	Discussion

0104	Mamadou Wade TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 12) EGR 1108 AVW 1454	Discussion

ENEE200 **Technology and Consequences: Engineering, Ethics, and Humanity**

Credit only granted for: ENEE200 or ENES200.

What makes a technology socially responsible? At UMD, the Fearless Ideas campaign asks us to aim our enthusiasm for technology at big real problems. At the same time, we are coming to appreciate the increasingly complex nature of technological systems as they become integrated into all forms of infrastructure, we realize they may be unpredictable, interdependent on social and biological systems, and have unintended consequences. In this midst of this complexity, people make decisions with far reaching impacts. How then do we follow our passion for technology and innovation but also stay skeptical in a way that allows us to consider the potential and shortcomings of technology? Designed for both engineering and non-engineering students wishing to explore and assess the impact of engineering technology on society and the role of society in generating that technology.

Electrical Engineering (09090) and Computer Engineering(09991) majors have priority. Non-majors should choose the holdfile option. Department will release available seats to students in the holdfile after the last day of Early Registration for Freshmen.

0101	Timothy Reedy TuTh 9:30am - 10:45am F 9:00am - 10:15am	Seats (Total: 15) ESJ 1215 CHE 2140	Discussion
0102	Timothy Reedy TuTh 9:30am - 10:45am F 10:30am - 11:45am	Seats (Total: 15) ESJ 1215 CHE 2140	Discussion
0103	Timothy Reedy TuTh 9:30am - 10:45am F 12:00pm - 1:15pm	Seats (Total: 15) ESJ 1215 CHE 2140	Discussion
0104	Timothy Reedy TuTh 9:30am - 10:45am F 1:30pm - 2:45pm	Seats (Total: 15) ESJ 1215 CHE 2140	Discussion
0105	Timothy Reedy TuTh 9:30am - 10:45am F 3:00pm - 4:15pm	Seats (Total: 15) ESJ 1215 CHE 2140	Discussion

0201	Nicole Mogul TuTh 3:30pm - 4:45pm F 9:00am - 10:15am	Seats (Total: 15) ESJ 0215 CHE 2116	 Discussion
0202	Nicole Mogul TuTh 3:30pm - 4:45pm F 10:30am - 11:45am	Seats (Total: 15) ESJ 0215 CHE 2116	 Discussion
0203	Nicole Mogul TuTh 3:30pm - 4:45pm F 12:00pm - 1:15pm	Seats (Total: 15) ESJ 0215 CHE 2116	 Discussion
0204	Nicole Mogul TuTh 3:30pm - 4:45pm F 1:30pm - 2:45pm	Seats (Total: 15) ESJ 0215 CHE 2116	 Discussion
0205	Nicole Mogul TuTh 3:30pm - 4:45pm F 3:00pm - 4:15pm	Seats (Total: 15) ESJ 0215 CHE 2116	 Discussion

ENEE205 **Electric Circuits**

(Perm req)

Prerequisite: Minimum grade of C- in PHYS260; and minimum grade of C- in PHYS261; and permission of ENGR-Electrical & Computer Engineering department. Corequisite: MATH246 or ENEE290. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Design, analysis, simulation, construction and evaluation of electric circuits. Terminal Relationships. Kirchoff's laws. DC and AC steady state analysis. Node and mesh methods. Thevenin and Norton equivalent circuits. Transient behavior of first- and second-order circuits. Frequency response and transfer functions. Ideal op-amp circuits. Diode and transistor circuits.

0101	Thomas Murphy MW 2:00pm - 3:15pm F 12:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 12) EGR 1108 AVW 1356 AVW 1356	 Lab Discussion
0102	Thomas Murphy MW 2:00pm - 3:15pm Tu 9:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 12) EGR 1108 AVW 1356 AVW 1356	 Lab Discussion

0103	Thomas Murphy	Seats (Total: 12)	
	MW 2:00pm - 3:15pm	EGR 1108	
	W 12:00pm - 1:50pm	AVW 1356	Lab
	W 11:00am - 11:50am	AVW 1356	Discussion
0104	Thomas Murphy	Seats (Total: 12)	
	MW 2:00pm - 3:15pm	EGR 1108	
	W 9:00am - 10:50am	AVW 1356	Lab
	W 8:00am - 8:50am	AVW 1356	Discussion
0201	Wesley Lawson	Seats (Total: 12)	
	TuTh 9:30am - 10:45am	CHE 2118	
	M 12:00pm - 1:50pm	AVW 1356	Lab
	M 11:00am - 11:50am	AVW 1356	Discussion
0202	Wesley Lawson	Seats (Total: 12)	
	TuTh 9:30am - 10:45am	CHE 2118	
	M 3:00pm - 4:50pm	AVW 1356	Lab
	M 2:00pm - 2:50pm	AVW 1356	Discussion
0203	Wesley Lawson	Seats (Total: 12)	
	TuTh 9:30am - 10:45am	CHE 2118	
	F 9:00am - 10:50am	AVW 1356	Lab
	F 8:00am - 8:50am	AVW 1356	Discussion
0204	Wesley Lawson	Seats (Total: 12)	
	TuTh 9:30am - 10:45am	CHE 2118	
	F 3:00pm - 4:50pm	AVW 1356	Lab
	F 2:00pm - 2:50pm	AVW 1356	Discussion

ENEE222 **Elements of Discrete Signal Analysis**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE140; or minimum grade of C- in CMSC131; and permission of ENGR- Electrical & Computer Engineering department. Corequisite: ENEE290; or coursework approved by the department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Discrete- and continuous-time signals, sampling of sinusoids. Discrete Fourier transform: properties and applications. Periodic signals and Fourier series. Discrete-time linear filters in time and frequency domains. Numerical applications and implementation of algorithms (using MATLAB).

0101	Adrianos Papamarcou TuTh 5:00pm - 6:15pm Tu 9:00am - 9:50am Th 9:00am - 9:50am	Seats (Total: 27) KEB 1110 KEB 2107 KEB 2107	 Lab Discussion
0102	Adrianos Papamarcou TuTh 5:00pm - 6:15pm Tu 10:00am - 10:50am Th 10:00am - 10:50am	Seats (Total: 27) KEB 1110 KEB 2107 KEB 2107	 Lab Discussion
0201	Adrianos Papamarcou TuTh 12:30pm - 1:45pm W 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 27) KEB 1200 KEB 2107 KEB 2107	 Lab Discussion
0202	Adrianos Papamarcou TuTh 12:30pm - 1:45pm W 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 27) KEB 1200 KEB 2107 KEB 2107	 Lab Discussion

ENEE244 **Digital Logic Design**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in CMSC132 or ENEE150; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Sophomore standing or higher; and must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

The design and analysis of combinational and synchronous sequential systems comprising digital logic gates and flip-flop memory devices; underlying tools such as switching and Boolean algebras and Karnaugh map simplification of gate networks; design and use of decoders, multiplexers, encoders, adders, registers, counters, sequence recognizers, programmable logic arrays (PLAs), read-only memories (ROMS, PROMS), and similar devices. Arbitrary radix conversion.

Engineering College only (04).

0101	Mamadou Wade MW 12:30pm - 1:45pm Th 9:00am - 9:50am	Seats (Total: 12) KEB 1110 MTH B0431	 Discussion
0102	Mamadou Wade MW 12:30pm - 1:45pm Th 10:00am - 10:50am	Seats (Total: 12) KEB 1110 MTH B0431	 Discussion

0103	Mamadou Wade MW 12:30pm - 1:45pm Th 11:00am - 11:50am	Seats (Total: 12) KEB 1110 MTH B0431	Discussion
0104	Mamadou Wade MW 12:30pm - 1:45pm Th 12:00pm - 12:50pm	Seats (Total: 12) KEB 1110 PHY 4222	Discussion
0105	Mamadou Wade MW 12:30pm - 1:45pm Th 1:00pm - 1:50pm	Seats (Total: 12) KEB 1110 EGR 3111	Discussion
0106	Mamadou Wade MW 12:30pm - 1:45pm Th 2:00pm - 2:50pm	Seats (Total: 12) KEB 1110 EGR 3114	Discussion
0201	Mamadou Wade TuTh 2:00pm - 3:15pm M 9:00am - 9:50am	Seats (Total: 11) EGR 1202 EGR 3102	Discussion
0202	Mamadou Wade TuTh 2:00pm - 3:15pm M 10:00am - 10:50am	Seats (Total: 11) EGR 1202 EGR 3111	Discussion
0203	Mamadou Wade TuTh 2:00pm - 3:15pm M 11:00am - 11:50am	Seats (Total: 12) EGR 1202 EGR 3111	Discussion
0204	Mamadou Wade TuTh 2:00pm - 3:15pm M 12:00pm - 12:50pm	Seats (Total: 12) EGR 1202 EGR 3111	Discussion
0205	Mamadou Wade TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 12) EGR 1202 CHE 2116	Discussion
0206	Mamadou Wade TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 12) EGR 1202 JMP 1202	Discussion

ENEE245 **Digital Circuits and Systems Laboratory**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE244. And minimum grade of C- in ENEE150; or minimum grade of C- in CMSC132. And permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Introduction to basic measurement techniques and electrical laboratory equipment (power supplies, oscilloscopes, voltmeters, etc.). Design, construction, and characterization of digital circuits containing logic gates, sequential elements, oscillators, and digital integrated circuits. Introduction to digital design and simulation with the Verilog Hardware Description Language (HDL).

0101	Mamadou Wade M 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1324	 Lab
0102	Mamadou Wade M 10:00am - 10:50am Tu 8:00am - 10:50am	Seats (Total: 12) EGR 1202 AVW 1324	 Lab
0103	Mamadou Wade M 10:00am - 10:50am W 11:00am - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1324	 Lab
0104	Mamadou Wade M 10:00am - 10:50am Th 11:00am - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1324	 Lab
0105	Mamadou Wade M 10:00am - 10:50am F 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1324	 Lab
0106	Mamadou Wade M 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1324	 Lab
0107	Mamadou Wade M 10:00am - 10:50am Tu 11:00am - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1324	 Lab
0108	Mamadou Wade M 10:00am - 10:50am W 8:00am - 10:50am	Seats (Total: 12) EGR 1202 AVW 1324	 Lab

ENEE290 **Introduction to Differential Equations and Linear Algebra for Engineers**

(Perm req)

Prerequisite: Minimum grade of C- in MATH141; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE290, MATH240, MATH246, or MATH461.

First-order differential equations, matrices and systems of linear equations, finite-dimensional vector spaces, inner product spaces, eigenvalues and eigenvectors, linear differential equations of higher order, and systems of differential equations. This course covers important topics in mathematics for Electrical and Computer Engineers. Specifically, several topics are covered, including first-order differential equations, matrices and systems of linear equations, finite-dimensional vector spaces, inner product spaces, eigenvalues and eigenvectors, linear differential equations of higher order, and systems of differential equations. Theoretical topics presented in the lectures will be reinforced by laboratory exercises.

0101	Joseph JaJa MW 3:30pm - 4:45pm TuTh 12:30pm - 1:20pm	Seats (Total: 20) AJC 2121 AJC 2132	 Discussion

ENEE303 **Analog and Digital Electronics**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Conceptual operation of transistors and diodes. Large and small signal operation of BJTs and MOSFETs. Basic transistor configurations. Logic circuits and semiconductor memory. Multi-transistor circuits including differential amplifiers and current mirrors. Frequency response.

0101	Danilo Romero MW 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 20) EGR 0108 EGR 3114	 Discussion
0102	Danilo Romero MW 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 20) EGR 0108 CSI 2118	 Discussion
0201	Agisilaos Iliadis TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 20) EGR 0108 CHE 2145	 Discussion
0202	Agisilaos Iliadis TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 20) EGR 0108 EGR 2154	 Discussion

ENEE304 **Introduction to Micro and Nanoelectronics**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE304 or ENEE303; ENEE304 or ENEE313.

Introduction to semiconductor device physics: drift-diffusion model, pn junction properties, BJTs and FETs. Electronic circuits: diode circuits, BJT and MOSFET amplifiers, logic gates and multi-transistor circuits (such as differential amplifiers and current mirrors).

0101	Neil Goldsman MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 20) EGR 1102 CSI 3118	 Discussion

ENEE307 Electronic Circuits Design Laboratory

(Perm req)

Prerequisite: Minimum grade of C- in ENEE303; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Students will design and test analog and digital circuits at the transistor level. FETs and BJTs will be covered. The laboratory experiments will be tightly coordinated with ENEE303 materials.

0101	Timothy Horiuchi W 10:00am - 10:50am Tu 11:00am - 1:50pm	Seats (Total: 8) KEB 1110 AVW 1330	 Lab
0102	Timothy Horiuchi W 10:00am - 10:50am M 11:00am - 1:50pm	Seats (Total: 8) KEB 1110 AVW 1330	 Lab
0104	Timothy Horiuchi W 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 8) KEB 1110 AVW 1330	 Lab
0105	Timothy Horiuchi W 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 8) KEB 1110 AVW 1330	 Lab
0108	Timothy Horiuchi W 10:00am - 10:50am W 11:00am - 1:50pm	Seats (Total: 8) KEB 1110 AVW 1330	 Lab

ENEE313 Introduction to Device Physics

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Basic physics of devices including fields in solids, crystal structure, properties of electrons and holes. Current flow in Si using drift-diffusion model. Properties of the pn junction. Properties of devices including BJTs, FETs and their physical characteristics.

0101	Kevin Daniels MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 25) EGR 0108 CSI 3118	Discussion
0102	Kevin Daniels MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 25) EGR 0108 PLS 1111	Discussion

ENEE322 **Signal and System Theory**

(Perm req)

Prerequisite: Minimum grade of C- in MATH246 or ENEE290; and minimum grade of C- in ENEE222. Restriction: Permission of ENGR-Electrical & Computer Engineering department. Must be in the following program (Engineering: Computer). Credit only granted for: ENEE322 or ENEE323.

Concept of linear systems, state space equations for continuous systems, time and frequency domain analysis of signals and linear systems. Fourier, Laplace and Z transforms. Application of theory to problems in electrical engineering.

ENEE majors (09090) only.

0101	Andre Tits TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 20) EGR 0135 MTH 0102	Discussion
0102	Andre Tits TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 20) EGR 0135 MTH 0401	Discussion
0201	Carol Espy-Wilson MW 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 20) EGR 1108 EGR 1102	Discussion

0202	Carol Espy-Wilson MW 12:30pm - 1:45pm F 3:00pm - 3:50pm	Seats (Total: 20) EGR 1108 EGR 1110	 Discussion

ENEE322H **Signal and System Theory**

(Perm req)

Prerequisite: Minimum grade of C- in MATH246 or ENEE290; and minimum grade of C- in ENEE222. Restriction: Permission of ENGR-Electrical & Computer Engineering department. Must be in the following program (Engineering: Computer). Credit only granted for: ENEE322 or ENEE323.

Concept of linear systems, state space equations for continuous systems, time and frequency domain analysis of signals and linear systems. Fourier, Laplace and Z transforms. Application of theory to problems in electrical engineering.

0101	Andre Tits TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 10) EGR 1108 MTH 0102	 Discussion

ENEE324 **Engineering Probability**

(Perm req)

Prerequisite: Minimum grade of C- in MATH246 and ENEE222; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: DATA400, STAT400 or ENEE324. Additional information: Electrical Engineering majors may NOT substitute STAT400 for ENEE324.

Axioms of probability; conditional probability and Bayes' rules; random variables, probability distribution and densities: functions of random variables: weak law of large numbers and central limit theorem. Introduction to random processes; correlation functions, spectral densities, and linear systems. Applications to noise in electrical systems, filtering of signals from noise, estimation, and digital communications.

ENEE majors (09090) only.

0101	Richard La MW 3:30pm - 4:45pm F 9:00am - 9:50am	Seats (Total: 25) CSI 3120 EGR 3102	 Discussion
0102	Richard La MW 3:30pm - 4:45pm F 10:00am - 10:50am	Seats (Total: 25) CSI 3120 MTH B0423	 Discussion

0201	Armand Makowski TuTh 9:30am - 10:45am F 11:00am - 11:50am *Click here for more section information.*	Seats (Total: 25) EGR 0108 EGR 1102	Discussion

ENEE350 **Computer Organization**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE244; and 1 course with a minimum grade of C- from (ENEE150, CMSC132); and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Structure and organization of digital computers. Registers, memory, control and I/O. Data and instruction formats, addressing modes, assembly language programming. Elements of system software, subroutines and their linkages.

ENEE majors (09090) only

0101	Yavuz Oruc TuTh 3:30pm - 4:45pm Tu 9:00am - 9:50am	Seats (Total: 20) EGR 0108 CHE 2136	Discussion
0102	Yavuz Oruc TuTh 3:30pm - 4:45pm Tu 10:00am - 10:50am	Seats (Total: 20) EGR 0108 MTH 0401	Discussion
0201	Yavuz Oruc TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 20) JMP 2121 CHE 2140	Discussion
0202	Yavuz Oruc TuTh 12:30pm - 1:45pm W 10:00am - 10:50am	Seats (Total: 20) JMP 2121 PLS 1117	Discussion
0301	Manoj Franklin MW 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 20) AJC 2121 CHE 2145	Discussion
0302	Manoj Franklin MW 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 20) AJC 2121 EGR 2154	Discussion

ENEE350H **Computer Organization**

Prerequisite: Minimum grade of C- in ENEE244; and 1 course with a minimum grade of C- from (ENEE150, CMSC132); and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Structure and organization of digital computers. Registers, memory, control and I/O. Data and instruction formats, addressing modes, assembly language programming. Elements of system software, subroutines and their linkages.

0101	Manoj Franklin MW 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 5) AJC 2121 EGR 2154	 Discussion

ENEE380 **Electromagnetic Theory**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; and minimum grade of C- in MATH241, PHYS270, and PHYS271; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

Introduction to electromagnetic fields. Coulomb's law, Gauss's law, electrical potential, dielectric materials capacitance, boundary value problems, Biot-Savart law, Ampere's law, Lorentz force equation, magnetic materials, magnetic circuits, inductance, time varying fields and Maxwell's equations.

ENEE majors (09090) only.

0101	Mohammad Hafezi TuTh 3:30pm - 4:45pm Tu 10:00am - 10:50am	Seats (Total: 20) EGR 1108 PLS 1113	 Discussion
0102	Mohammad Hafezi TuTh 3:30pm - 4:45pm Tu 5:00pm - 5:50pm	Seats (Total: 20) EGR 1108 EGR 3114	 Discussion

ENEE380H **Electromagnetic Theory**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; and minimum grade of C- in MATH241, PHYS270, and PHYS271; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

Introduction to electromagnetic fields. Coulomb's law, Gauss's law, electrical potential, dielectric materials capacitance, boundary value problems, Biot-Savart law, Ampere's law, Lorentz force equation, magnetic materials, magnetic circuits, inductance, time varying fields and Maxwell's equations.

0101	Mohammad Hafezi TuTh 3:30pm - 4:45pm W 11:00am - 11:50am	Seats (Total: 6) EGR 1108 EGR 3111	 Discussion

ENEE381 **Electromagnetic Wave Propagation**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE380; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

The electromagnetic spectrum: Review of Maxwell's equations; the wave equation potentials, Poynting's theorem, relationship between circuit theory and fields; propagation of electromagnetic waves in homogeneous media and at interfaces; transmission line theory, waveguides, radiation and antennas.

ENEE majors only (09090).

0101	Patrick O'Shea TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 20) EGR 0135 EGR 3114	 Discussion
0102	Patrick O'Shea TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 20) EGR 0135 MTH 0407	 Discussion

ENEE382 **Electromagnetics**

(Perm req)

Prerequisite: Minimum of C- or better in ENEE205, MATH241, PHYS270, and PHYS271; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in the Electrical Engineering program. Credit only granted for: ENEE380 or ENEE382; ENEE381 or ENEE382.

Theory and tools needed to solve electromagnetic problems and understand how electromagnetic waves propagate and interact with materials. Fields and potentials. Maxwell's equations and wave propagation. Reflection and transmission. Transmission lines. Antennas and radiation.

0101	Wesley Lawson TuTh 11:00am - 12:15pm MW 9:00am - 9:50am	Seats (Total: 20) ATL 0201 EGR 2116	 Discussion

ENEE408A **Capstone Design Project:Microprocessor-Based Design**

(Perm req)

Prerequisite: ENEE440 or permission of the instructor. This course provides a team-based experience in the design and implementation of a microprocessor-based system to solve a real-world problem. A product specification or client requirement forms the basis for the student teams development of an initial technical design specification. The team then divides into smaller groups for the parallel development of hardware and software subsystems of the product device. Upon completion and test of the various subsystems, software and hardware components are integrated into the system prototype and the system is tested and documented.

0101	William Hawkins	Seats (Total: 12)	
	Th 9:30am - 10:20am	EGR 1110	
	Contact instructor or department for details.		

ENEE408C **Capstone Design Project: Modern Digital System Design**

(Perm req)

Prerequisite: ENEE 350. A real-world digital system design experience that prepares students for careers in FPGA and ASIC design. Student teams use the Verilog hardware description language together with industry-standard simulation and synthesis tools to design medium-complexity digital chips that are ultimately configured and tested on FPGAs with real-world applications. Results from these projects will be presented through in-class presentations and written reports.

0101	Shuvra Bhattacharyya	Seats (Total: 16)	
	Tu 3:30pm - 4:45pm	KEB 2107	
	Th 2:00pm - 4:50pm	KEB 2107	Lab

ENEE408E **Capstone Design Project: Optical System Design**

(Perm req)

Prerequisite(s): ENEE 380. Corequisite(s): ENEE 381. The purpose of this course is to teach optical analysis and design techniques by reference to the performance of many different optical components and systems. Attention will be given to real world design in terms of component selection, optimization, and integration into systems

0101	Joseph Mait	Seats (Total: 30)
	MW 11:00am - 12:15pm	AJC 2134

ENEE408I **Capstone Design Project: Autonomous Control of Interacting Robots**

(Perm req)

Prerequisite: ENEE322; Electrical or Computer Engineering seniors in their last semester. Co-requisite: ENEE460 or ENEE463. The course involves students in the design,development, and application of autonomous robotic systems.The robots are 4 wheeled vehicles with on-board sensors (cameras, acoustic sensors),computers and wireless communications capabilities. The students work in teams to program the the robots to accomplish a task individually and in teams of 2 or more robots. Applications vary from semester to semester, including racing with passing, soccer, search and identify.

0101	Shihab Shamma M 10:00am - 10:50am Th 9:00am - 11:50am	Seats (Total: 15) AJC 2119 KEB 3209	 Lab

ENEE408K **Capstone Design Project; Electric Cars**

(Perm req)

Culmination of prior course work in electrical and computer engineering. Utilization of modern design tools and methodologies for the design of components or systems under realistic constraints, with particular emphasis on teamwork and oral/written communication. Areas in which projects are currently offered include: microprocessor-based systems, digital systems, VLSI design (both digital and mixed-signal), and optical systems.

Prerequisites: ENEE303, Electrical or Computer Engineering seniors in their last year of their program. Recommended co-requisite: ENEE476 or ENEE475. Restriction: Permission of Electrical & Computer Engineering. A capstone course on the design of electric cars, which will be designed eventually use a combination of off-the-shelf components. The major components inside the electric car include electric motor, power inverter, drive circuit, battery management system, sensors and encodersetc. This course will also cover PCB (printed circuit board) design and hands on soldering.

0101	Rakesh Resalayyan M 12:00pm - 12:50pm Tu 2:30pm - 5:00pm	Seats (Total: 18) KEB 1200 AVW 1450	 Lab
0102	Rakesh Resalayyan M 12:00pm - 12:50pm Th 2:30pm - 5:00pm	Seats (Total: 18) KEB 1200 AVW 1450	 Lab

ENEE411 **Advanced Analog and Digital Electronics**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE303. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; and must have permission of the department.

Examination of analog and digital device models for analysis, design, and simulation of transistor level electronic circuits, emphasizing Metal Oxide Silicon Field Effect Transistors (MOSFETs); fundamental single transistor configurations; frequency response, feedback, and stability of multi-transistor circuits, such as current mirrors, differential amplifiers, voltage references, operational amplifiers and data converters; complementary Metal Oxide Silicon (CMOS) implementations of static and clocked digital as well as mixed signal circuits.

0101	Pamela Abshire MW 11:00am - 12:15pm	Seats (Total: 30) AJC 2132	

ENEE416 **Integrated Circuit Fabrication Laboratory**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE303; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Characterization of wafers and fabrication steps. Oxide growth, lithography, dopant diffusion, and metal deposition and patterning will be discussed in the lectures and carried out in the lab in fabricating NMOS transistor circuits. The transistor characteristics will be measured and related to the fabrication parameters.

0101	Reza Ghodssi Th 11:00am - 12:15pm Tu 9:00am - 12:00pm	Seats (Total: 5) EGR 2116 KEB 2300	 Lab
0102	Reza Ghodssi Th 11:00am - 12:15pm W 12:30pm - 3:30pm	Seats (Total: 5) EGR 2116 KEB 2300	 Lab
0103	Reza Ghodssi Th 11:00am - 12:15pm M 12:30pm - 3:30pm	Seats (Total: 5) EGR 2116 KEB 2300	 Lab
0105	Reza Ghodssi Th 11:00am - 12:15pm F 9:00am - 12:00pm	Seats (Total: 5) EGR 2116 KEB 2300	 Lab

ENEE419M **Topics in Microelectronics; Advanced Manufacturing Laboratory (AML)**

(Perm req)

Selected topics of current importance in microelectronics.

Prerequisite: ENEE313. Credit only granted for ENEE419M, ENMA489M, or BIOE489J. An interdisciplinary course designed to provide students with an overview of key processes, technology, and manufacturing techniques involved in fabricating advanced devices and systems. Students will be exposed to state-of-the-art fabrication technologies including soft lithography, 3D printing, hybrid manufacturing, material functionalization, and systems integration. In addition to developing a theoretical understanding in the classroom, students will gain hands-on fabrication and characterization experience of systems that can interface with complex environments.

0101	Kevin Daniels MW 9:00am - 9:50am F 9:00am - 11:50am	Seats (Total: 8) CHE 2116 KEB 1135	 Lab

ENEE420 **Communication Systems**

(Perm req)

Prerequisite: ENEE322, ENEE324; and completion of all lower-division technical courses in the EE curriculum.

Fourier series, Fourier transforms and linear system analysis; random signals, autocorrelation functions and power spectral densities; analog communication systems: amplitude modulation, single-sideband modulation, frequency and phase modulation, sampling theorem and pulse-amplitude modulation; digital communication systems pulse-code modulation, phase-shift keying, differential phase shift keying, frequency shift keying; performance of analog and digital communication systems in the presence of noise.

ENEE majors (09090) only.

0101	Mark Shayman TuTh 3:30pm - 4:45pm	Seats (Total: 30) AJC 2121

ENEE425 **Digital Signal Processing**

(Perm req)

Prerequisite: ENEE322; and completion of all lower-division technical courses in the EE curriculum.

Sampling as a modulation process; aliasing; the sampling theorem; the Z-transform and discrete-time system analysis; direct and computer-aided design of recursive and nonrecursive digital filters; the Discrete Fourier Transform (DFT) and Fast Fourier Transform (FFT); digital filtering using the FFT; analog-to-digital and digital-to analog conversion; effects of quantization and finite-word-length arithmetic.

ENEE majors (09090) only.

0101	Mark Shayman TuTh 12:30pm - 1:45pm	Seats (Total: 30) AJC 2121

ENEE436 **Foundations of Machine Learning**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (ENEE324, STAT400); and 1 course with a minimum grade of C- from (ENEE150, CMSC216); and permission of ENGR-Electrical & Computer Engineering department. Restriction: Permission of ENGR-Electrical & Computer Engineering department. And must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; or must be in the ECE Department's Machine Learning notation program. Credit only granted for: ENEE436, ENEE439M, or CMSC422. Formerly: ENEE439M.

A broad introduction to the foundations of Machine Learning (ML), as well as hands-on experience in applying ML algorithms to real-world data sets. Topics include various techniques in supervised and unsupervised learning, as well as applications to computer vision, data mining, and speech recognition.

0101	Sanghamitra Dutta	Seats (Total: 30)	
	MW 12:30pm - 1:45pm	EGR 2154	

ENEE440 **Microprocessors**

(Perm req)

Prerequisite: ENEE350; and completion of all lower division technical courses in the EE curriculum. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Microprocessor architectures, instruction sets, and applications. Bus structures, memory, I/O interfacing. Assembly language programming, LSI device configuration, and the embedding of microprocessors in systems.

ENEE majors only (09090).

0101	William Hawkins	Seats (Total: 35)	
	TuTh 11:00am - 12:15pm	EGR 1104	

ENEE445 **Computer Laboratory**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; or minimum grade of C- in ENEE206; and minimum grade of C- in ENEE350; and must have earned a minimum grade of C- in all 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

This laboratory course focuses on the hardware/software interface in computer systems. Hands-on experiments are used to teach design, construction, analysis, and measurement of both hardware and software for embedded systems. Projects emphasize using microcontrollers for control, sensing, and communication through various I/O devices.

0101	William Hawkins	Seats (Total: 12)	
	Tu 12:30pm - 1:20pm	EGR 1110	
	Th 2:00pm - 5:00pm	AVW 1424	Lab

ENEE446 **Digital Computer Design**

(Perm req)

Prerequisite: ENEE350; and completion of all lower-division technical courses in the EE curriculum. Restriction: Permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: ENEE446 or CMSC411.

Hardware design of digital computers. Arithmetic and logic units, adders, multipliers and dividers. Floating-point arithmetic units. Bus and register structures. Control units, both hardwired and microprogrammed. Index registers, stacks, and other addressing schemes. Interrupts, DMA and interfacing.

ENEE majors (09090) only.

0101	Manoj Franklin MW 3:30pm - 4:45pm	Seats (Total: 60) EGR 0108

ENEE457 **Computer Systems Security**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE350; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: CMSC414 or ENEE457.

Theoretical and practical aspects of computer systems security. Topics covered include symmetric/asymmetric encryption, message authentication, digital signatures, access control, as well as network security, web security and cloud security. Students acquire tools necessary for designing secure computer systems and programs and for defending against malicious threats (e.g., viruses, worms, denial of service).

0101	Ang Li MW 11:00am - 12:15pm	Seats (Total: 60) EGR 1108

ENEE459A **Topics in Computer Engineering; CAD Tools**

(Perm req)

Selected topics of current importance in computer engineering.

Prerequisite: ENEE245. Verilog or VDHL hardware description languages (HDLs) and graphical printed ciruit design CAD packages are used to create a digital system implemented on a printed circuit-board. A practical design for hardware incorporating a processor and interface devices is to be created by the student. Simulation is used to explore practical issues of system performance and device resource constraints, and a printed-circuit board proof-of-concept will be produced by the student.

0101	William Hawkins Tu 9:30am - 10:20am Contact instructor or department for details.	Seats (Total: 12) EGR 1110

ENEE459B **Topics in Computer Engineering; Reverse Engineering and Hardware Security Laboratory**

(Perm req)

Selected topics of current importance in computer engineering.

Prequisite: ENEE244, ENEE245, and ENEEE350 or permission of the instructor.

0101	Yonghwi Kwon, Hassan Salmani Tu 5:00pm - 6:15pm Th 5:00pm - 7:00pm	Seats (Total: 24) KEB 1200 AVW 2446	 Lab
0102	Yonghwi Kwon, Hassan Salmani Tu 5:00pm - 6:15pm W 5:00pm - 7:00pm	Seats (Total: 24) KEB 1200 AVW 2446	 Lab

ENEE459D **Topics in Computer Engineering; Advanced Laboratory of Digital Systems Using SystemsVerilog**

(Perm req)

Selected topics of current importance in computer engineering.

Prerequisites: Completion of ENEE245 and ENEE350 with a "C-" or better. SystemVerilog programming expertise is considered an essential skill for any Functional Design/Verification job in the semi- conductor industry and there is a huge demand for such jobs. This course will help students to develop theoretical and practical skills for both design & verification of ASIC/FPGA using SystemVerilog. In this course, you will learn the main features and benefits of the SystemVerilog language and apply the concepts by developing your own test environments.

0101	Jerry Wu Th 12:30pm - 1:45pm F 9:00am - 11:50am	Seats (Total: 10) JMP 2120 AVW 1442	 Lab

ENEE460 **Control Systems**

(Perm req)

Prerequisite: ENEE322; and (ENEE290, MATH240, or MATH461); and completion of all lower-division technical courses in the EE curriculum. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Mathematical models for control system components. Transform and time domain methods for linear control systems. Introductory stability theory. Root locus, bode diagrams and Nyquist plots. Design specifications in the time and frequency domains. Compensation design in the time and frequency domain. Introduction to sampled data systems.

ENEE majors (09090) only.

0101	Kaiqing Zhang TuTh 2:00pm - 3:15pm	Seats (Total: 30) EGR 0135	

ENEE467 **Robotics Project Laboratory**

(Perm req)

Prerequisite: Minimum grade of C- in ENAE450 or (ENEE322 and a course which covers academic content similar to that of ENAE450 with approval from the Department of Electrical and Computer Engineering). Restriction: Must be in the Robotics and Autonomous Systems minor; and permission of Department of Electrical and Computer Engineering.

Teaches practical skills to build, control, and deploy robotic systems. Interdisciplinary groups of students develop real-world robotic systems, with emphasis on making a real robot do what one wants it to do.

0101	William Levine MW 3:30pm - 4:20pm M 12:00pm - 2:50pm	Seats (Total: 14) KEB 1200 KEB 3209	 Lab
0102	William Levine MW 3:30pm - 4:20pm W 12:00pm - 2:50pm	Seats (Total: 14) KEB 1200 KEB 3209	 Lab
0103	William Levine MW 3:30pm - 4:20pm F 10:00am - 12:50pm	Seats (Total: 14) KEB 1200 KEB 3209	 Lab
0104	William Levine MW 3:30pm - 4:20pm F 1:00pm - 3:50pm	Seats (Total: 14) KEB 1200 KEB 3209	 Lab

ENEE474 **Power Systems**

(Perm req)

Prerequisite: ENEE322; and completion of all lower-division technical courses in the EE curriculum.

Interconnected power systems, transmission lines, load flow studies, unit commitment and economic dispatch. Three phase networks, machine models. Symmetrical components, fault analysis and unbalanced operation. Power system transients, stability and numerical methods in power system analysis.

0101	David Bowen TuTh 2:00pm - 3:15pm	Seats (Total: 45) JMP 2116	

ENEE476 **Renewable Energy**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE303; and completion of all lower-divisions ENEE courses with a C- or better. Restriction: Permission of ENGR-Electrical & Computer Engineering department; and must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Solar Energy Conversion Systems: History of Photovoltaic (PV) Systems, PV Cell, Module and Array Models and Equivalent Circuits, Characteristic Resistance, Fill Factor, Effects of Parasitic Resistances, Mismatch Effects, Shading, Bypass Diodes, Sun Tracking Systems, Maximum Power Point Tracking (MPPT) Techniques, Isolated and Non-isolated Switch-mode DC/DC for PV Systems, Inverter Design and Control, Sizing the PV Panel and Battery Pack in PV Applications. Wind Energy Conversion Systems: Introduction to Wind Energy Harvesting, Horizontal and Vertical Wind Systems, Fundamentals of Wind Energy Harvesting Systems, Variable Speed and Fixed Speed Wind Energy Conversion Systems (WECS), Wind Turbines and Different Electrical Machines in Wind Applications, Induction Machine and Dynamic Model of Induction Machines, Synchronous Generators and Dynamic Model of SG, Control of Wind Energy Conversion Systems.

Alternating face-to-face/online meeting. See instructor for details.

0101	Alireza Khaligh	Seats (Total: 60)	
	MW 3:30pm - 4:45pm	EGR 1108	

ENEE486 **Optoelectronics Lab**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; or minimum grade of C- in ENEE206. And minimum grade of C- in PHYS271 and PHYS270; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Hands-on experience in performing measurements in optics and electro-optics. Basics of optics, light detectors, Fourier optics, gratings and spectrometers, pulsed dye lasers, fiber optics, electro-optics, and acousto-optics.

Credit only granted for ENEE486 or ENEE648D.

0101	Mario Dagenais	Seats (Total: 9)	
	W 10:00am - 10:50am	EGR 1110	
	Tu 2:00pm - 5:00pm	AVW 1366	Lab

ENEE488 **Independent Study in Electrical and Computer Engineering**

(Perm req)

The purpose is to provide students with an opportunity for independent study projects on advanced electrical and computer engineering topics. These projects typically involve academic investigations of technical themes that are not addressed in the established elective and special topics courses taught by the department on a regular basis. Study plans are tailored to students educational goals but are approved and supervised by faculty.

Prerequisite: permission of department.

Contact department for information to register for this course.

ENEE489I **Topics in Electrophysics; SOLAR ENERGY CONVERSION**

(Perm req)

Selected topics of current importance in electrophysics.

This course covers the scientifically intriguing and industry-relevant optoelectronic devices, including lasers, solar cells, light-emitting diodes (LED), and photodetectors. The course is designed to walk the students through the device working principles, significant components of each device, state of the art of each device, and outlook of these device developments. The course aims to equip the students with necessary device knowledge for future careers on optoelectronic devices, in both academia and industry. There are no prerequisite courses for this course, though some backgrounds in semiconductors and pn junctions will be helpful.

0101	Cheng Gong	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	AJC 2121

ENEE489L **Topics in Electrophysics; Design of Active and Passive Microwave Devices**

(Perm req)

Selected topics of current importance in electrophysics.

Prerequisite: ENEE381 and permission of department. The goals of this course are to survey the field of microwave engineering, investigate the current applications of microwave systems, and understand the basic operating principles of the most common sourcesandcomponents.

0101	Wesley Lawson	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	EGR 1104

ENEE489N **Topics in Electrophysics; Antenna Design**

(Perm req)

Selected topics of current importance in electrophysics.

Prerequisites: ENEE381. Restriction: Permission of Electrical & Computer Engineering Department. A senior level hands-on course to expose students to the principles of antenna design and methods for generation and reception of GHz signals. The course includes theory and computer modeling, as well as fabrication and testing of small scale antennas used in naval communication systems. The course builds upon the concepts of electromagnetic wave introduced in ENEE381. Students will learn the state of the art in microwave instrumentation and techniques, along with simulation tools based on geometry. Students will analyze and test several prototype antenna configurations.

Contact department for information to register for this course.

ENEE498M **Topics in Electrical Engineering; Mathematical Methods in Electrical Engineering**

(Perm req)

Selected topics of current importance in electrical engineering.

Prerequisite: Completion of MATH241 with a "C-" or better; completion of all 200-level ENEE courses. A fundamental understanding of applied mathematical techniques that are essential for solving problems in various fields of electrical and computer engineering. The topics that will be covered are complex variables/analysis, linear algebra, Laplace and Fourier transforms, discrete math, and differential equations. The emphasis is on the application of these mathematical tools to problems that students encounter in the upper-division electrical and computer engineering courses. Computational tools such as Wolfram Alpha and MATLAB will be introduced.

Contact department for information to register for this course.

ENEE499 **Senior Projects in Electrical and Computer Engineering**

(Perm req)

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

ENEE majors (09090) only.

Contact department for information to register for this course.

ENEE499H **Senior Projects in Electrical and Computer Engineering; Departmental Honors Thesis**

(Perm req)

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE499L **Senior Projects in Electrical and Computer Engineering**

(Perm req)

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE499R **Senior Projects in Electrical and Computer Engineering**

(Perm req)

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE600 **Solid State Electronics**

Prerequisite: ENEE413; and must have background in elementary quantum mechanics. Credit only granted for: ENEE600 or ENEE793. Formerly: ENEE793.

Properties of crystals; energy bands: electron transport theory; conductivity and hall effect; statistical distributions; fermi level: impurities; non-equilibrium carrier distributions; normal modes of lattice vibration and thermal properties of crystals; tunneling phenomena; surface properties.

0101	Agisilaos Iliadis	Seats (Total: 25)	
	TuTh 11:00am - 12:15pm	AJC 2134	

ENEE611 **Integrated Circuit Design and Analysis**

Recommended: ENEE610. Credit only granted for: ENEE611 or ENEE696. Formerly: ENEE696.

Active and passive elements used in semiconductor structures. Design application of linear and digital integrated circuits.

0101	Timothy Horiuchi	Seats (Total: 30)	
	MW 2:00pm - 3:15pm	EGR 2116	

ENEE620 **Random Processes in Communication and Control**

Prerequisite: ENEE324; or students who have taken courses with comparable content may contact the department.

Introduction to random processes: characterization, classification, representation; Gaussian and other examples. Linear operations on random processes, stationary processes: covariance function and spectral density. Linear least square waveform estimating Wiener-Kolmogroff filtering, Kalman-Bucy recursive filtering: function space characterization, non-linear operations on random processes.

0101	Alexander Barg	Seats (Total: 18)	
	TuTh 12:30pm - 1:45pm	AJC 2119	
	F 11:00am - 11:50am	MTH B0429	Discussion

0102	Alexander Barg	Seats (Total: 18)	
	TuTh 12:30pm - 1:45pm Th 5:00pm - 5:50pm	AJC 2119 MTH 0102	Discussion

ENEE630 **Advanced Digital Signal Processing**

Prerequisite: ENEE425. Corequisite: ENEE620. Credit only granted for: ENEE624 or ENEE630. Formerly: ENEE624.

This is the first-year graduate course in signal processing. The objective is to establish fundamental concepts of signal processing on multirate processing, parametric modeling, linear prediction theory, modern spectral estimation, and high-resolution techniques.

0101	Tahereh Fazel	Seats (Total: 40)	
	MW 3:30pm - 4:45pm F 10:00am - 10:50am	EGR 3106 CSI 2120	Discussion

ENEE633 **Statistical Pattern Recognition**

Prerequisite: MATH461; or students who have taken courses with comparable content may contact the department; or permission of instructor. Corequisite: ENEE620; or permission of instructor. Credit only granted for: ENEE633 or ENEE739Q. Formerly: ENEE739Q.

The goal is to introduce mathematical pattern analysis and recognition. Emphasis is given to parametric and non-parametric statistical pattern recognition methods and clustering with applications to speech, image and video recognition.

0101	Behtash Babadi	Seats (Total: 90)
	MW 11:00am - 12:15pm	EGR 1202

ENEE634 **Learning and Statistical Signal Processing**

Prerequisite: ENEE620 and ENEE630.

Adaptive learning and statistical signal processing, including: numerical analysis; principal component analysis and support vector machines; adaptive signal processing (supervised learning); blind equalization and identification (unsupervised learning); antenna array and MIMO signal processing; space-time and space-time-frequency coding; neural networks (nonlinear adaptive learning); advanced topics on machine learning, such as online and deep learning.

0101	Armand Makowski	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	EGR 1104

ENEE641 **Mathematical Foundations for Computer Engineering**

Credit only granted for: ENEE641 or ENEE759F. Formerly: ENEE759F.

Mathematical modeling, design, analysis and proof techniques related to computer engineering. Probability, logic, combinatorics, set theory, and graph theory, as they pertain to the design and performance of computer engineering systems. Techniques for the design and analysis of efficient computational methods from graph theory and networks. Understanding of the limits on the efficiency of such computational methods. Translation from mathematical theory to actual programming. The course emphasizes mathematical rigor.

0101	Uzi Vishkin	Seats (Total: 30)
	MW 12:30pm - 1:45pm	AJC 2132

ENEE646 **Digital Computer Design**

Prerequisite: ENEE446; or students who have taken courses with comparable content may contact the department.

Concepts and techniques for design of computer systems with improved performance. Advanced I/O systems, memory organization, pipeland and parallel processors, bus bandwidth, processor/memory interconnections, cache memory, virtual memory, multiprocessors, performance evaluation.

0101	Donald Yeung	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	EGR 2116

ENEE648D **Advanced Topics in Electrical Engineering; Optoelectronics Lab**

(Perm req)

Every semester courses intended for a high degree of specialization are offered by visiting or regular electrical engineering faculty members in two or more of the areas listed in 488. The student should check with the electrical engineering office of graduate studies for a list and the description of the topics offered currently.

0101	Mario Dagenais	Seats (Total: 9)	
	W 10:00am - 10:50am	EGR 1110	
	Tu 2:00pm - 5:00pm	AVW 1366	Lab
	W 11:00am - 11:50am	EGR 1110	Discussion

ENEE660 **System Theory**

Prerequisite: ENEE460 and MATH463; or students who have taken courses with comparable content may contact the department.

General systems models. State variables and state space. Linearity and its implications. Controllability and observability. State space structure and representation. Realization theory and algorithmic solutions. Parameterizations of linear systems; canonical forms. Basic results from stability theory. Stabilizability. Fine structure of linear multivariable systems; minimal indices and polynomial matrices. Interplay between frequency domain and state space.

0101	John Baras	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	CHM 1224

ENEE662 **Convex Optimization**

Recommended: MATH410. Credit only granted for: ENEE759F or ENEE662.

Focuses on recognizing, solving, and analyzing convex optimization problems. Convex sets, convex functions, convex and quasi-convex optimization problems. Duality theory and optimality conditions. Specific classes of problems including linear optimization (LP), semi-definite optimization (SDP), geometric programming. Algorithms for unconstrained and constrained optimization; interior-point methods. Applications in controls, communications, signal processing, statistics, and other areas.

0101	Nuno Martins	Seats (Total: 35)
	MW 2:00pm - 3:15pm	EGR 1104

ENEE680 **Fundamentals of Electromagnetics**

Prerequisite: ENEE381; or students who have taken courses with comparable content may contact the department.

Theoretical analysis and engineering applications of Maxwell's equations: boundary value problems of electrostatics and magnetostatics, dielectric and magnetic properties of matter, energy and momentum content of fields, introduction to EM wave propagation.

0101	Ronald Walsworth	Seats (Total: 25)
	MW 3:30pm - 4:45pm	AJC 2134

ENEE690 **Introduction to Quantum Mechanics**

Prerequisite: ENEE381; or students who have taken courses with comparable content may contact the department.

Introduction to the Schroedinger equation, matrix formulations of quantum mechanics, identical particles, entanglement, approximation methods, symmetries. Applications to solid-state, atomic, and quantum information science.

0101	Edo Waks	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	EGR 0108

ENEE698Q **Graduate Seminar; Colloquium Series**

Every semester regular seminars are held in electrical science and in the six areas of specialization offered by the electrical engineering department. They may be taken, by arrangement with the student's advisor, for repeated credit.

0101	Sennur Ulukus	Seats (Total: 80)
	F 3:30pm - 4:30pm	KEB 1110

ENEE699 **Independent Studies in Electrical Engineering**

(Perm req)

Supervised individual study or project, or supervised group study or project, at an advanced level, in electrical engineering.

Contact department for information to register for this course.

ENEE719G **Advanced Topics in Microelectronics; High Frequency Power Electronics**

Prerequisites: ENEE303 and ENEE475; or students who have taken courses with comparable content may contact the ECE Department. The advancement of wide-bandgap (WBG) power semiconductors have enabled power conversion at increasingly high frequencies, driven by applications including renewable energy, electric vehicles, communications, datacenter, space exploration, robotics, drones, healthcare, and semiconductor manufacturing. The course explores components, networks, circuits, architectures, and modulation techniques for the frequency range 3 - 300 MHz, which bridge the gap between traditional power electronics and microwave engineering.

0101	Xin Zan	Seats (Total: 25)
	MW 12:30pm - 1:45pm	HJP 2217

ENEE759C **Advanced Topics in Computer Engineering; Domain Specific Architecture**

Topics, as announced every semester, from the field of computer engineering and its applications.

Cross-listed with CMSC818J. Credit only granted for CMSC818J or ENEE759C.

0101	Bahar Asgari	Seats (Total: 40)
	MW 3:30pm - 4:45pm	IRB 1207

ENEE765 **Adaptive Control**

Prerequisite: ENEE660 and ENEE664; or students who have taken courses with comparable content may contact the department.

General principles of adaptive control. Self-tuning regulators and model reference adaptive systems. Theoretical issues: stability, convergence, and robustness. Practical issues: implementation, computation, auto-tuning, and other successful application. Alternatives to adaptive control.

0101	Perinkulam Krishnaprasad	Seats (Total: 25)
	TuTh 5:00pm - 6:15pm	AJC 2134

ENEE769M **Advanced Topics in Controls; Robotics**

Topics selected, as announced every semester, from the field of controls and its applications.

Cross-listed with CMSC756. Credit only granted for CMSC756 or ENEE769M.

0101	Dinesh Manocha	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	CSI 2117

ENEE799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

ENEE889 **Teaching Workshop**

(Perm req)

Provide training in education for senior PhD students who contemplate an academic career, and give them the opportunity to gain some teaching experience. Emphasis is on issues that are of special importance in electrical and computer engineering education.

Contact department for information to register for this course.

ENEE898 **Pre-Candidacy Research**

(Perm req)

Provide training in education for senior PhD students who contemplate an academic career, and give them the opportunity to gain some teaching experience. Emphasis is on issues that are of special importance in electrical and computer engineering education.

Contact department for information to register for this course.

ENEE899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENES Engineering Science Fall 2023

ENES100 **Introduction to Engineering Design**

(Perm req)

Prerequisite: Must have math eligibility for MATH140 or higher.

Students work as teams to design and build a product using computer software for word-processing, spreadsheet, CAD, and communication skills.

0201	Kevin Calabro, Richard Blanton TuTh 8:00am - 9:50am Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 40) JMP 1215 ONLINE
0301	Aris Cleanthous MW 10:00am - 11:50am Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 39) JMP 1215 ONLINE

0302	Peter Sunderland MW 10:00am - 11:50am Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 39) JMP 2202 ONLINE
0401	Brian Danielak TuTh 10:00am - 11:50am Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 40) JMP 1215 ONLINE
0501	David Kriesberg MW 12:00pm - 1:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 39) JMP 1215 ONLINE
0502	Brian Danielak MW 12:00pm - 1:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 39) JMP 2202 ONLINE
0601	Amy Karlsson TuTh 12:00pm - 1:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 39) JMP 1215 ONLINE
0602	Michael Galczynski TuTh 12:00pm - 1:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 39) JMP 2202 ONLINE
0701	Michael Galczynski MW 2:00pm - 3:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 39) JMP 1215 ONLINE
0702	Joshua Cocker MW 2:00pm - 3:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 39) JMP 2202 ONLINE
0801	Danielle Barker TuTh 2:00pm - 3:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 39) JMP 1215 ONLINE

0802	Brian Danielak TuTh 2:00pm - 3:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 39) JMP 2202 ONLINE	
1001	Isabel Lloyd TuTh 4:00pm - 5:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 39) JMP 1215 ONLINE	
1002	Jarred Young TuTh 4:00pm - 5:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 39) JMP 2202 ONLINE	
FC01	Joshua Cocker MW 4:30pm - 6:20pm Class time/details on ELMs Contact instructor or department for details. *Restricted to students in Freshmen Connection. This section is for prospective Engineering students only.*	Seats (Total: 40) JMP 1215 ONLINE	
FC02	Lina Castano MW 7:00pm - 8:50pm Class time/details on ELMs Contact instructor or department for details. *Restricted to students in Freshmen Connection.*	Seats (Total: 40) JMP 1215 ONLINE	

ENES102 **Mechanics I**

(Perm req)

Corequisite: MATH140. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Formerly: ENES110.

The equilibrium of stationary bodies under the influence of various kinds of forces. Forces, moments, couples, equilibrium, trusses, frames and machines, centroids, moment of inertia, beams, friction, stress/strain, material properties. Vector and scalar methods are used to solve problems.

0101	Kevin Calabro MW 9:00am - 9:50am F 9:00am - 10:50am	Seats (Total: 60) CCC 1100 CCC 1100	 Discussion

0102	Jarred Young MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 60) KEB 1110 EGR 0108	 Discussion
0104	Thomas Beigel MW 2:00pm - 2:50pm Class time/details on ELMs F 2:00pm - 3:50pm	Seats (Total: 60) CHE 2118 ONLINE MCB 1207	 Discussion
0105	Gary Pertmer Tu 5:00pm - 6:50pm Th 5:00pm - 6:50pm	Seats (Total: 30) CHE 2118 CHE 2118	 Discussion

ENES102H **Mechanics I**

(Perm req)

Corequisite: MATH140. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Formerly: ENES110.

The equilibrium of stationary bodies under the influence of various kinds of forces. Forces, moments, couples, equilibrium, trusses, frames and machines, centroids, moment of inertia, beams, friction, stress/strain, material properties. Vector and scalar methods are used to solve problems.

0201	Catherine Hamel MW 12:00pm - 12:50pm F 12:00pm - 1:50pm	Seats (Total: 60) MCB 1207 MCB 1207	 Discussion
0301	Jarred Young MW 2:00pm - 2:50pm F 2:00pm - 3:50pm	Seats (Total: 60) PLS 1130 ANS 0408	 Discussion

ENES113 **Virtus Living and Learning Community Seminar I**

Restriction: Must be in first year Virtus program.

The seminar focuses on personal and professional development related to the field of engineering with a strong emphasis on clarifying career goals and decisions. Additional topics include an introduction to basic tools, undergraduate research opportunities, and campus and engineering resources.

0101	Paige Smith, Jarred Young, Sam Murillo W 4:00pm - 5:30pm	Seats (Total: 65) KEB 1110	

ENES115 **FLEXUS Living and Learning Community Seminar I**

(Perm req)

Restriction: Must be a first year FLEXUS Participant.

The seminar focuses on personal and professional development related to the field of engineering with a strong emphasis on clarifying career goals and decisions. Additional topics include an introduction to campus and engineering resources, basic tools, and undergraduate research opportunities. Students will discuss issues of concern through a variety of book readings, self-reflections, and panel discussions with practicing women engineers.

0101	Paige Smith, Catherine Hamel, Sam Murillo W 4:00pm - 5:30pm	Seats (Total: 65) MCB 1207

ENES138 **Equity and Inclusion in Engineering Design**

Through deliberate reflections on the past and current patterns of exclusion and inclusion within engineering, you will develop skills for engaging in equitable and inclusive processes and practices that can transform your collaborations and approach to engineering and the design process. This course engages students, from multiple social identity groups, in facilitated dialogue that focus on the tensions, similarities, and differences of experience that exist within, between, and/or across groups.

Restriction: Must be a student in the A. James Clark School of Engineering or in the Global Engineering Leadership minor. Credit only granted for: ENES338K, CHSE338K, or ENES138. Formerly: ENES338K. Through deliberate reflections on the past and current patterns of exclusion and inclusion within engineering, you will develop skills for engaging in equitable and inclusive processes and practices that can transform your collaborations and approach to engineering and the design process. This course engages students, from multiple social identity groups, in facilitated dialogue that focus on the tensions, similarities, and differences of experience that exist within, between, and/or across groups.

0101	Paige Smith, Le-Marie Thompson **Meets August 28, 2023 - October 10, 2023** Tu 4:00pm - 6:00pm	Seats (Total: 16) CHE 2136
0102	Lauren Ruszczyk, Matthew Scassero **Meets August 28, 2023 - October 12, 2023** Th 4:00pm - 6:00pm	Seats (Total: 16) ATL 1434
0201	Aileen Hentz, Adam Klager **Meets October 17, 2023 - December 5, 2023** Tu 12:00pm - 2:00pm	Seats (Total: 16) PHY 2211

0202	Adam Klager, Aralia Ramirez **Meets October 18, 2023 - December 6, 2023** W 4:00pm - 6:00pm	Seats (Total: 16) EGR 0135

ENES138U **Equity and Inclusion in Engineering Design; US Identity in a Global Context**

Through deliberate reflections on the past and current patterns of exclusion and inclusion within engineering, you will develop skills for engaging in equitable and inclusive processes and practices that can transform your collaborations and approach to engineering and the design process. This course engages students, from multiple social identity groups, in facilitated dialogue that focus on the tensions, similarities, and differences of experience that exist within, between, and/or across groups.

SA02	Julia Blatchford, Rachel Mantinan **Meets October 1, 2023 - November 19, 2023** Contact instructor or department for details.	Seats (Total: 0)

ENES140 **Discovering New Ventures**

Additional information: This course may count as an elective for a student at the University of Maryland, depending on the student's specific degree program. It cannot be counted towards the requirements for the Smith School of Business Entrepreneurship Fellow Program.

Students explore dynamic company startup topics by working in teams to design a new venture. This multi-disciplinary course helps students to learn the basic business, strategy, and leadership skills needed to launch new ventures. Topics include learning how to assess the feasibility of a startup venture, as well as how to apply best practices for planning, launching, and managing new companies. Students discuss a wide range of issues of importance and concern to entrepreneurs and learn to recognize opportunities, assess the skills and talents of successful entrepreneurs, and learn models that help them navigate uncertainty.

0101	James Green Class time/details on ELMs	Seats (Total: 350) ONLINE
0201	James Green Class time/details on ELMs	Seats (Total: 350) ONLINE
0301	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0401	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE

0501	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE	
0601	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE	
FC01	Michael Pratt MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 99) ESJ 2208	

ENES181 **Engineering & The Grand Challenges**

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; and must be a new freshman or transfer student.

Introduction to the various fields of engineering and the necessary context for students to fully engage in selected National Academy of Engineering's Grand Challenges such as economical solar energy, carbon sequestration, access to clean water, engineering better medicines, restoring urban infrastructure and personalized learning. The lectures and activities will provide an introduction to the engineering disciplines, NAE Grand Challenges, STEM cultures, and research.

0101	Samuel Graham W 4:00pm - 4:50pm	Seats (Total: 100) ANS 0408	

ENES190H **Introduction to Design and Quality**

Restriction: Must be in the Quest program. Cross-listed with: BMGT190. Credit only granted for: BMGT190 or ENES190.

QUEST students learn and apply design practices to design new products and services. Working in multidisciplinary teams, students use quality and process improvement methods to identify, analyze, and recommend solutions to real-world problems.

First course in a sequence of four Total Quality Program Courses. Restricted to QUEST Honors Program students. Cross-listed with ENES190H.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	Benjamin Huffman, Joshua Cocker TuTh 12:30pm - 1:45pm Tu 6:00pm - 7:50pm	Seats (Total: 45) TWS 1310 ESJ 1215	 Discussion

ENES200 **Technology and Consequences: Engineering, Ethics and Humanity**

Credit only granted for: ENEE200 or ENES200.

What makes a technology socially responsible? At UMD, the Fearless Ideas campaign asks us to aim our enthusiasm for technology at big real problems. At the same time, we are coming to appreciate the increasingly complex nature of technological systems as they become integrated into all forms of infrastructure, we realize they may be unpredictable, interdependent on social and biological systems, and have unintended consequences. In this midst of this complexity, people make decisions with far reaching impacts. How then do we follow our passion for technology and innovation but also stay skeptical in a way that allows us to consider the potential and shortcomings of technology? Designed for both engineering and non-engineering students wishing to explore and assess the impact of engineering technology on society and the role of society in generating that technology.

0101	Christine Alexander TuTh 9:30am - 10:45am F 9:00am - 10:15am	Seats (Total: 16) ESJ 2212 ESJ B0322	Discussion
0102	Christine Alexander TuTh 9:30am - 10:45am F 10:30am - 11:45am	Seats (Total: 16) ESJ 2212 ESJ B0322	Discussion
0103	Christine Alexander TuTh 9:30am - 10:45am F 12:00pm - 1:15pm	Seats (Total: 16) ESJ 2212 ESJ B0322	Discussion
0104	Christine Alexander TuTh 9:30am - 10:45am F 1:30pm - 2:45pm	Seats (Total: 15) ESJ 2212 ESJ B0322	Discussion
0105	Christine Alexander TuTh 9:30am - 10:45am F 3:00pm - 4:15pm	Seats (Total: 15) ESJ 2212 JMZ 0208	Discussion

ENES210 **Entrepreneurial Opportunity Analysis and Decision-Making in 21st Century Technology Ventures**

Credit only granted for: ENES210 or ENES461.

This multi-disciplinary course helps students learn the principles of entrepreneurial opportunity analysis and decision-making in an increasingly dynamic and technically-inclined society. Emphasis is placed on how aspiring technology entrepreneurs can develop their entrepreneurial perspectives to develop winning entrepreneurial plans for their future ventures.

0101	Michael Pratt, James Green M 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE	

0201	James Green, Michael Pratt M 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE
0301	James Green, Michael Pratt M 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE
0401	Michael Pratt, James Green M 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE
0501	James Green W 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE
0601	James Green W 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE
0701	James Green W 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE
0801	James Green W 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE

ENES213 **Virtus Living and Learning Community Seminar III**

(Perm req)

Prerequisite: ENES113. Restriction: Must be a participant in the second year of the Virtus program.

The seminar focuses on personal, academic and professional success by cultivating leadership skills, developing academic and technical ability and encouraging self awareness, identifying and employing strategies for academic and professional success, further enhancing career development through networking and mentoring and developing awareness of diversity issues.

0101	Paige Smith, Tyler Huddleston Th 4:00pm - 5:30pm	Seats (Total: 45) ANS 0412

ENES215 **FLEXUS Living and Learning Community Seminar III**

(Perm req)

Prerequisite: ENES115 and ENES116. Restriction: Must be a second year FLEXUS participant.

The seminar focuses on personal, academic and professional success by cultivating leadership skills, developing self-confidence and self-efficacy in academic and technical ability and encouraging self awareness, identifying and employing strategies for academic and professional success, further enhancing career development through networking, mentoring and role modeling, and developing awareness of diversity issues, specifically gender diversity.

0101	Paige Smith, Samantha Sabihi Th 4:00pm - 5:30pm	Seats (Total: 49) PHY 1402	

ENES220 **Mechanics II**

(Perm req)

Prerequisite: Minimum grade of C- in ENES102; and (MATH141 and PHYS161). Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; and must not be in Engineering: Electrical program.

Stress and deformation of solids-rods, beams, shafts, columns, tanks, and other structural, machine and vehicle members. Topics include stress transformation using Mohr's circle; shear and moment diagrams; derivation of elastic curves; and Euler's buckling formula. Design problems related to this material are given in lab.

0101	Thomas Beigel MW 9:00am - 9:50am Class time/details on ELMs F 9:00am - 10:50am	Seats (Total: 50) EGR 1108 ONLINE EGR 1108	 Discussion
0201	Kevin Calabro MW 12:00pm - 12:50pm F 12:00pm - 1:50pm	Seats (Total: 49) CHE 2118 CHE 2118	 Discussion
0301	Robert Bonenberger MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 53) EGR 0108 CCC 1205	 Discussion
0401	Kevin Calabro MW 2:00pm - 2:50pm F 2:00pm - 3:50pm	Seats (Total: 53) HJP 2242 ESJ 2309	 Discussion
0501	Robert Bonenberger MW 1:00pm - 1:50pm F 1:00pm - 2:50pm	Seats (Total: 53) CCC 1100 CCC 1100	 Discussion

0601	Thomas Beigel MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 12:50pm	Seats (Total: 53) ANS 0412 ONLINE CSI 3117	 Discussion

ENES221 **Dynamics**

(Perm req)

Prerequisite: Minimum grade of C- in ENES102; and (MATH141 and PHYS161). Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

Systems of heavy particles and rigid bodies at rest and in motion. Force-acceleration, work-energy and impulse-momentum relationships. Motion of one body relative to another in a plane and in space.

0101	Patrick McAvoy MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 50) KEB 1200 ATL 1113	 Discussion
0103	Patrick McAvoy MW 1:00pm - 1:50pm F 1:00pm - 2:50pm	Seats (Total: 50) PHY 1204 CSI 3117	 Discussion
0104	Ken Kiger MW 12:00pm - 12:50pm F 12:00pm - 1:50pm	Seats (Total: 50) ATL 1113 ESJ 1215	 Discussion
0105	Patrick McAvoy MW 2:00pm - 2:50pm F 3:00pm - 4:50pm	Seats (Total: 50) PHY 4221 CSI 3117	 Discussion

ENES232 **Thermodynamics**

Prerequisite: PHYS261 and PHYS260. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Credit only granted for: BIOE232, CHBE301, ENCH300, ENES232, ENME320, or ENME232. Formerly: ENME232 and ENME320.

Introduction to thermodynamics. Thermodynamic properties of matter. First and second laws of thermodynamics, cycles, reactions, and mixtures.

For all sections of ENES 232 there will be common midterm examinations on periodic Thursdays from 7:00-8:15pm. As such, this time should be held available on the course schedule.

0101	Catherine Hamel	Seats (Total: 53)	
	MW 9:00am - 9:50am	EGR 0108	
	F 9:00am - 10:50am	EGR 0108	Discussion
	Th 7:00pm - 8:15pm	EGR 1108	Discussion
0301	Paul Anderson	Seats (Total: 53)	
	MW 1:00pm - 1:50pm	EGR 0108	
	F 1:00pm - 2:50pm	EGR 0108	Discussion
	Th 7:00pm - 8:15pm	EGR 0108	Discussion

ENES240 **Ethical, Policy and Social Implications of Science and Technology**

Restriction: Must be in the Science, Technology, Ethics and Policy minor. Cross-listed with: PLCY240. Credit only granted for: ENES240 or PLCY240.

Asks students to think about how society should manage complexity, transformation, and uncertainty with an eye on developing a broader sense of ethics and social responsibility. Introduces analytical frameworks, concepts, and data collection techniques that interdisciplinary scholars use to map relationships among science, technology and society and generate important questions about the future of society.

0101	Timothy Reedy	Seats (Total: 50)
	TuTh 12:30pm - 1:45pm	HJP 2242
0201	Roan Parrish	Seats (Total: 50)
	TuTh 3:30pm - 4:45pm	ESJ 1202

ENES317 **Introduction to Leadership in Engineering, Science, and Technology**

Restriction: Must be in the Minor in Global Engineering Leadership(#EN09). Additional information: Students not meeting restriction requirements should add themselves to the course holdfile. Restrictions DO NOT apply to winter and summer terms.

Develop a comprehensive overview and introduction to leadership and organizational development. Students will reflect on their own leadership experiences, develop a strong foundational knowledge of leadership theory, and advance their capacities in effectively leading teams. Students will connect leadership theory to practice by engaging in case study analysis and critique leadership practices enacted within engineering and technology settings. Students will complete self-assessments to better understand their own leadership strengths and refine their approaches to leadership by incorporating theories covered in this course.

0101	Darren Pierre	Seats (Total: 45)
	M 5:00pm - 7:30pm	ANS 0412

ENES390H **Designing Innovative Systems**

Prerequisite: ENES190 or BMGT190. Restriction: Must be in the QUEST program. Cross-listed with: BMGT390. Credit only granted for: BMGT390 or ENES390.

QUEST students develop an understanding of complex systems that incorporate elements of business and technical design and analyze how these systems evolve over time and may be shaped by technology disruptions, internal decisions, and external forces. Students apply these concepts to real-world complex systems in a team environment.

Restricted to QUEST Honors Program students. Cross-listed with BMGT390H.

0101	David Ashley MW 5:00pm - 6:15pm	Seats (Total: 55) ESJ 1215

ENES397 **Mentoring Multidisciplinary Teams**

Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: BMGT397. Credit only granted for: BMGT397 or ENES397.

QUEST students practice essential skills for mentoring and coaching multidisciplinary teams. These include effective communications, facilitation, conflict resolution, and the ability to motivate. Students will practice these skills as mentors for student teams from BMGT/ENES 190H. In the process, they will strengthen their knowledge of design and quality techniques.

0101	Emily Marks Tu 5:00pm - 7:40pm	Seats (Total: 9) ESJ B0322

ENES401 **Entrepreneurial Design Realization**

(Perm req)

Restriction: Must have senior standing and permission of instructor. Cross-listed with: ENME401. Credit only granted for: ENME401, ENME489B or ENES401. Formerly: ENME489B.

The vision for this course, and an aspect that makes it unique, is to expose students to the opportunities and challenges of bringing a product design to reality (entrepreneurship). The emphasis is on environmentally and socially sustainable projects. The end-product of this course will be full-scale implementations or complete design "packages" that can be taken to potential stakeholders.

0101	David Bigio MW 5:00pm - 6:15pm	Seats (Total: 25) EGR 2116
0201	Vincent Nguyen TuF 3:00pm - 4:15pm	Seats (Total: 25) PHY 2106

ENES424 **Engineering Leadership Capstone: Inclusive Leadership in Addressing Organizational & Societal Challenges**

Prerequisite: ENES472 and ENES317. Restriction: Must be in the Global Engineering Leadership minor (#EN09).

The Minor in Global Engineering Leadership is designed to bring together one's understanding of leadership, organizations, culture, and global studies and apply this synthesized learning to a capstone project. The project will provide real-world application of global leadership principles to address an organizational or societal need. Students will utilize an inclusive leadership and global mindset to propose a big idea which brings about a positive organizational or societal change.

0101	Darren Pierre Tu 5:00pm - 6:30pm Class time/details on ELMs	Seats (Total: 30) MTH 0407 ONLINE

ENES440 **Science, Technology, Ethics, and Policy: Minor Program Capstone**

Prerequisite: ENES240 and 2 courses from the STEP minor elective list. Restriction: Must be in the Science, Technology, Ethics, and Policy minor. Additional information: This is the culminating course the STEP minor program.

Capstone research seminar for students in the Science, Technology, Ethics, and Policy Minor program.

This is the culminating course for the STEP minor program.

0101	Nicole Mogul TuTh 11:00am - 12:15pm	Seats (Total: 25) ESJ 2101

ENES461 **Advanced Entrepreneurial Opportunity Analysis in Technology Ventures**

Credit only granted for: ENES210 or ENES461.

Explores the factors that influence entrepreneurial opportunity analysis in technology-based ventures. Uses a cognitive theoretical framework to examine the integration of motivation, emotions and information processing modes to make complex entrepreneurial decisions in technology venture environments.

0101	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0201	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE

ENES472 **Leading Global Teams and Engaging Across Cultures in Business, Engineering, and Technology**

Restriction: Sophomore standing or higher; must be a minor in Global Engineering Leadership (#EN09), Global Poverty (#AG06), Global Terrorism Studies (#BS07), or International Development and Conflict Management (#BS02). Credit only granted for: ENES472, SLLC471, or SLLC473. Additional information: Students not meeting restriction requirements should add themselves to the course holdfile. Restrictions DO NOT apply to winter and summer terms.

Develop global leadership capacities and an understanding of the cultural aspects pertaining to industry and international business. In a globalized world, the ability to work, lead and communicate in culturally diverse settings has become a core component to leadership. Through real-world examples, research, and simulations, students will increase their self-awareness and understanding of culture and how culture influences attitudes, behaviors, and practices at the individual, organizational, or societal levels. Students will develop the skills necessary to navigate, negotiate, and lead cross-cultural engagements and teams. The course content is relevant and applicable to anyone interested in developing cross-cultural leadership competencies and cultivating a global mindset.

0101	Darren Pierre Th 5:00pm - 6:30pm Class time/details on ELMs	Seats (Total: 50) CSI 1121 ONLINE

ENES480 **Engineering Honors Seminar I**

Restriction: Must be in College of Engineering Honors; and junior standing or higher.

Introduction to engineering leadership, professionalism, and ethics. Discussions of leadership style, elements of success, professional communication, codes of ethics, handling of ethical dilemmas, and the characteristics of a professional.

0101	Wesley Lawson F 10:00am - 10:50am	Seats (Total: 20) EGR 1110
0102	Wesley Lawson F 1:00pm - 1:50pm	Seats (Total: 20) EGR 1102

ENES489A **Special Topics in Engineering; Applied Quantitative Analysis**

Special topics in engineering.

Restricted to QUEST Honors Program students. Credit granted for BMGT438A or ENES489A.

0101	Maria Bardossy MW 2:00pm - 3:15pm	Seats (Total: 50) VMH 1335

ENES490H **QUEST Capstone Professional Practicum**

Prerequisite: ENES390 or BMGT390. Cross-listed with: BMGT490. Credit only granted for: BMGT490 or ENES490.

The capstone course for the QUEST Honors Program provides students with an opportunity to learn in multidisciplinary teams of business, engineering, and science students in a real-world setting. Companies engage teams of QUEST students with real organizational challenges and dedicate resources to help students address these problems. Student teams must enhance their skills in quality management, process improvement, and systems design and will apply these to add value to a client. In the process, students will improve their teamwork skills.

Fourth course in a sequence of four Total Quality Program Courses. Restricted to QUEST Honors Program students.

0101	David Ashley, Maria Bardossy MW 3:30pm - 4:45pm Contact instructor or department for details.	Seats (Total: 45) TYD 1132

ENES491 **Scoping Experiential Learning Projects**

Prerequisite: BMGT190 or ENES190. Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: BMGT491. Credit only granted for: BMGT491 or ENES491.

QUEST students cultivate relationships with new and current corporate partners and prepare project scopes for QUEST's introductory course, BMGT/ENES 190H, and capstone course, BMGT/ENES 490H. Requires independent work communicating with clients and class visits to a variety of potential project sites.

Cross-listed with BMGT491.

0101	Jessica Roffe F 10:00am - 12:40pm Contact instructor or department for details.	Seats (Total: 9) VMH 3330H

ENES498R **Special Topics in Entrepreneurship; Fearless Founders: New Venture Practicum**

(Perm req)

This entrepreneurship seminar and case study-based course will explore technology entrepreneurship with a focus on leadership, marketing, team-building, and management of new technology ventures and assumes baseline knowledge of entrepreneurship. Students will learn skills needed to succeed as a technology entrepreneur and how to apply best practices for planning, launching, and growing new companies. This course is a requirement of the Hinman CEOs program.

0101	Le-Marie Thompson M 5:00pm - 7:40pm	Seats (Total: 25) VMH 1311

ENES602 **Future Faculty Program Seminar II**

(Perm req)

Restriction: Must be in the Clark School Future Faculty Program.

Effective teaching techniques. Basic principles of education and learning. Developing a course; promoting active learning, problem solving and critical thinking; designing exam and assignments; and communicating effectively with students.

This course is only open to students in the Clark School Future Faculty Program or by permission of Department.

0101	Amy Karlsson	Seats (Total: 25)
	M 2:00pm - 3:15pm	MTH 0403

ENES604 **Future Faculty Program Teaching Practicum**

(Perm req)

Prerequisite: ENES602. Restriction: Must be a graduate student in the Clark School Future Faculty Program; and students for whom English is not the native language must pass the Maryland English Institute ITA Evaluation prior to enrolling in this course.

Graduate students will co-teach a course under supervision of a faculty mentor. Graudate students will be involved in all aspects of the course including development of syllabus, presenting lectures, writing and grading examiniations, and evaluating the students in the course.

0101	Min Wu	Seats (Total: 10)
	Contact instructor or department for details.	

ENES660 **Fundamentals of Product Management**

Restriction: Must be in the Product Management Master of Professional Studies program; or permission of Maryland Technology Enterprise Institute.

Provides a comprehensive survey of product management and its growing role in producing technology-driven products that customers love. Guides students through the product lifecycle and market lifecycle, diving into the competencies needed at each stage. Topics include startup and corporate strategy, product strategy, vision setting and evangelism, development lifecycle approaches based on customer involvement and product stage, the various types of innovation at each stage of the lifecycle, and how the product manager leads the team through it all. Learn the basics of customer discovery, product discovery, product delivery, and the core-context model for managing products through maturity.

PLM1	Damien Peters	Seats (Total: 60)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management may register without permission. All other graduate students may contact mppm@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENES662 **Innovative Ideas and Concept Development**

Restriction: Must be in the Technology Entrepreneurship and Corporate Innovation Master of Professional Studies program; or permission of Maryland Technology Enterprise Institute.

Enables aspiring entrepreneurs to understand the content, methods, and models for new venture opportunity assessment and analysis. Focuses on how to identify and analyze entrepreneurial opportunities for technology-based ventures by first understanding the personal self and decision-making factors. Explores how to evaluate new venture opportunities and challenges within industries and markets.

PLM1	James Green	Seats (Total: 20)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Technology Entrepreneurship and Corporate Innovation may register without permission. All other graduate students may contact mpte@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENES663 **Strategies for Managing Innovation**

Restriction: Must be in the Product Management or the Technology Entrepreneurship and Corporate Innovation Master of Professional Studies programs; or permission of Maryland Technology Enterprise Institute.

Emphasizes how innovative leaders can use strategic management of innovation and technology to enhance firm performance. It helps students to understand the process of technological change; the ways that firms come up with innovations; the strategies that firms use to benefit from innovation; and the process of formulating technology strategy. It provides frameworks for analyzing key aspects of these industries and teaches students how to apply these frameworks.

PLM1	Sharon Flank	Seats (Total: 60)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management or MPS in Technology Entrepreneurship and Corporate Innovation may register without permission. All other graduate students may contact mtecheducation@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENES665 **Innovative Thinking**

Restriction: Must be in the Product Management or the Technology Entrepreneurship and Corporate Innovation Master of Professional Studies programs; or permission of Maryland Technology Enterprise Institute.

Introduces students to new and powerful tools to boost their creative problem solving skills. Participants re-discover their communication and teaming skills. Students unlock their creativity potential, and explore win-win approaches to define and solve problems of different kinds. Students are also introduced to topics related to intellectual property.

PLM1	Frankie Abralind	Seats (Total: 40)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management may register withoutr without permission. All other graduate students may contact mppm@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENES673 **Financing the Product Life Cycle**

Restriction: Must be in the Product Management Master of Professional Studies program; or permission of Maryland Technology Enterprise Institute.

Provides the essential tools and skills to build a strong financial foundation for designing, developing, and managing new products within established companies and organizations. Examines accounting principles as well as methods for managing the financials of the product. Discusses navigating the multitude of financial barriers that may block success, as well as how to raise the right amount of capital at the right time from the right source, with an emphasis on internal company financing.

PLM1	Michael Pratt	Seats (Total: 40)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management may register without permission. All other graduate students may contact mppm@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENES674 **Managing Product Development and Operations**

Restriction: Must be in the Product Management Master of Professional Studies program; or permission of Maryland Technology Enterprise Institute.

Explores the evolution of modern management methods for operations and product development. Evaluates production and operation methods from inception to factory-based models of productivity, through the quality and lean movements, to the explosion of productivity with modern approaches. Focuses on how to effectively run large-scale agile teams with agile engineering at its core.

PLM1	Michael O'Connor	Seats (Total: 40)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management may register without permission. All other graduate students may contact mppm@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENES680 **Building and Leading Innovative Organizations**

Restriction: Must be in the Product Management Master of Professional Studies program; or permission of Maryland Technology Enterprise Institute.

Focuses on building a product enterprise through lean product portfolio management. Defines the conceptual groundwork that enables achieving the vision of a customer-centric value creation business model centered around lean principles. Explains the details of building a scaled product enterprise and explores alignment of organizational support functions with a product framework that lays the pathway for a sustainable value maximizing enterprise at scale.

PLM1	Tushar Rathod	Seats (Total: 40)	
	Meets August 28, 2023 - November 17, 2023		
	Class time/details on ELMs	ONLINE	
	Students in the MPS in Product Management may register without permission. All other graduate students may contact mppm@umd.edu for permission to enroll. Golden ID students are not eligible for this section.		

ENFP Engineering, Fire Protection Fall 2023

ENFP101 **Introduction to Fire Protection Engineering**

(Perm req)

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP108 or ENFP101. Formerly: ENFP108.

This course will introduce students to the impact of fire on people, property and the environment and methods to mitigate the threat of fire. Student teams will apply the principles of fire behavior and fire safety systems covered in the first half of the course to design, build and test a fire safe, small-scale apartment. A final experiment will be conducted to provide an assessment of the complete designs of each team.

0101	Peter Sunderland	Seats (Total: 20)	
	M 12:00pm - 12:50pm	JMP 1109	

ENFP250 **Introduction to Life Safety Analysis**

(Perm req)

Prerequisite: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP250 or ENFP251. Formerly: ENFP251.

Introduction to fire protection engineering and building regulation focusing on building safety systems, egress system design and evacuation modeling.

0101	Kenneth Isman	Seats (Total: 30)	
	TuTh 9:30am - 10:45am	AJC 2134	
	F 10:00am - 10:50am	AJC 2134	Discussion

ENFP300 **Fire Protection Fluid Mechanics**

(Perm req)

Prerequisite: MATH246 and ENFP201; and must have completed or be concurrently enrolled in PHYS260, PHYS261. Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: BIOE331, ENCE305, ENFP300, or ENME331.

Presents students with the fundamental properties of fluids and fluid movement. Both static and dynamic fluid problems will be considered with an emphasis on fire protection systems.

0101	Fernando Raffan Montoya	Seats (Total: 30)	
	TuTh 11:00am - 12:15pm	AJC 2121	
	W 12:00pm - 12:50pm	AJC 2121	Discussion

ENFP405 **Structural Fire Protection**

(Perm req)

Prerequisite: ENES220. Restriction: Must be in Engineering: Fire Protection program; and permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP405 or ENFP621.

Effects of elevated temperature on structural materials; steel, concrete, wood, gypsum, glass and reinforced plastics. Experimental evaluation of fire resistance of building assemblies. Analytical methods to evaluate fire resistance of structural members.

0101	Shuna Ni	Seats (Total: 28)
	TuTh 3:30pm - 4:45pm	JMP 1202

ENFP410 **Special Hazard Suppression Systems**

(Perm req)

Prerequisite: ENFP310 and ENFP312. Restriction: Permission of ENGR-Fire Protection Engineering department. Jointly offered with: ENFP610. Credit only granted for: ENFP410, ENFP610 or ENFP653.

Analysis of application and theory of fire suppression systems. The key elements of fire suppression systems will be discussed along with how they interact for effective fire suppression design. Physical mechanisms for a variety of fire suppression approaches will be discussed including hose streams, sprinklers, water mist, foam, clean agents, and chemical agents.

0101	Kenneth Isman	Seats (Total: 28)
	TuTh 2:00pm - 3:15pm	CSI 1122

ENFP415 **Fire Dynamics**

(Perm req)

Prerequisite: ENFP312. Restriction: Permission of ENGR-Fire Protection Engineering department. Jointly offered with ENFP651. Credit only granted for: ENFP415 or ENFP651.

Designed to give students a quantitative understanding of fire behavior. The fundamentals of physics and chemistry of combustion are presented and used to derive key analytical relationships that describe fire growth. Application of these relationships to the analysis of common fire scenarios is emphasized.

0101	Paul Anderson TuTh 11:00am - 12:15pm	Seats (Total: 28) ANS 0402

ENFP425 **Enclosure Fire Modeling**

(Perm req)

Prerequisite: ENES232, ENFP300, and ENFP312. Restriction: Must be in Engineering: Fire Protection program; and senior standing; and permission of ENGR-Fire Protection Engineering department.

An introduction to enclosure fire dynamics through the development of fire modeling algorithms and the application of computer-based fire modeling techniques. The objectives of the course are: to provide a basic understanding of enclosure fire dynamics with an emphasis on a system-level viewpoint (i.e., a global description of the coupling between combustion dynamics, smoke filling, vent flows and heat transfer); and to provide an introduction to the zone modeling approach. Topics covered include a review of the mathematical formulation of zone models, a discussion of numerical integration of the zone modeling equations (using MATLAB), and an introduction to zone modeling software used by professional engineers (e.g., CFAST).

0101	Stanislav Stoliarov TuTh 9:30am - 10:45am	Seats (Total: 30) AJC 2132

ENFP429 **Independent Studies**

(Perm req)

For students who have definite plans for individual study of approved problems, or study of an advanced topic selected in conjunction with the faculty.

Senior standing. For ENFP majors only.

Contact department for information to register for this course.

ENFP440 **Smoke Management and Fire Alarm Systems**

(Perm req)

Prerequisite: Must have completed with a C- or better or concurrently be enrolled in ENFP300. Restriction: Permission of ENGR-Fire Protection Engineering department. Jointly offered with: ENFP627. Credit only granted for: ENFP440 or ENFP627.

Analysis of hazard posed by smoke in buildings. Performance characteristics of smoke management systems. Review of analytical design aids. Functional analysis and design of fire detection and alerting systems. Examination and evaluation of code criteria, performance specifications and research.

0101	Duane Johnson, James Milke MW 3:00pm - 4:15pm	Seats (Total: 30) JMP 1202

ENFP464 **Industrial Fire Safety**

(Perm req)

Prerequisite: Students must be of senior standing. Restriction: Permission of ENGR-Fire Protection Engineering department. Also offered as: ENFP664. Credit only granted for: ENFP464, ENFP489I, ENFP629I OR ENFP664. Formerly: ENFP489I. Additional information: The course will be taught as a dual senior-level undergraduate course and graduate course.

Designed to introduce students to the basics of process safety with a focus on the methods and techniques that may be utilized when evaluating the existing or proposed safety protection solutions in industrial facilities. An emphasis is placed on properly identifying the hazards that are present, the risk exposure, and how best to address the risk. The foundation is laid by presenting the necessary background information on industrial processes and integrating this information with applicable fire/explosion safety science.

0101	Andrew Kohout, Noah Ryder M 5:00pm - 7:50pm	Seats (Total: 10) EGR 1102

ENFP489 **Special Topics**

(Perm req)

Selected topics of current importance to fire protection.

For ENFP majors only.

Contact department for information to register for this course.

ENFP601 **Introduction to Fire Protection Engineering**

Additional information: Highly recommended to incoming graduate students to Fire Protection Engineering who have not earned a Bachelor's Degree in Fire Protection Engineering.

The basic concepts of life safety, water-based fire protection systems, building construction, codes and standards along with tenability, fire behavior, and human behavior are introduced along with traditional and performance-based approaches for analyzing human response to fire. Students learn to analyze the egress systems and design basic water-based fire suppression systems.

0101	Kenneth Isman MW 3:30pm - 4:45pm	Seats (Total: 10) EGR 1110

ENFP610 **Advanced Special Hazard Suppression Systems**

Jointly offered with: ENFP410. Credit only granted for: ENFP410, ENFP610 or ENFP653.

Issues related to the suppression of fires and the design of fire suppression systems. Theoretical aspects of fire suppression and extinction are considered to provide the foundation for the practical design of different types of fire suppression systems. Focus on water-based and "clean agent" fire suppression systems, with emphasis on high challenge and special hazard applications. Systems using other agents are introduced, but are not addressed in detail.

0101	Kenneth Isman	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	CSI 1122

ENFP619 **Graduate Seminar**

(Perm req)

0101	Arnaud Trouve	Seats (Total: 5)
	Contact instructor or department for details.	

ENFP621 **Analytical Procedures of Structural Fire Protection**

(Perm req)

Prerequisite: ENFP312. Cross-listed with ENFP621. Credit only granted for: ENFP405 or ENFP621.

Analysis procedures for structural components of wood, steel, concrete, composites. Structural capabilities, modifications under fire induced exposures. Calculations, computer models for predicting fire resistance ratings of structural components.

0101	Shuna Ni	Seats (Total: 10)
	TuTh 3:30pm - 4:45pm	JMP 1202

ENFP625 **Advanced Fire Modeling**

Prerequisite: Permission of ENGR-Fire Protection Engineering department.

Validity, utility, reliability of current computer models. Applications of models in risk assessment, underwriting, loss prediction, hazard analysis. Development and validation of specific application models.

EF01	Arnaud Trouve	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

ENFP626 **Computational Fire Modeling**

Prerequisite: ENFP300 and ENFP312. Restriction: Permission of ENGR-Fire Protection Engineering department.

Introduction to Computational Fluid Dynamics (CFD)-based fire modeling; governing equations of turbulent reacting flows; numerical approaches to the treatment of turbulence (DNS, LES, RANS); numerical methods for partial differential equations; physical modeling of enclosure fires (turbulence, combustion, thermal radiation, pyrolysis, suppression). Development of sample programs (Matlab) and use of current CFD-based fire models (FDS).

0101	Arnaud Trouve	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	EGR 1102

ENFP627 **Smoke Detection and Management**

Prerequisite: ENFP300. Jointly offered with: ENFP440. Credit only granted for: ENFP627 or ENFP440.

Analysis of hazard smoke. Response analysis of smoke detectors based on characteristics of detectors and properties of smoke. Performance characteristics and limitations of smoke management systems. Capabilities and limitations of analytical design aids.

0101	James Milke, Duane Johnson	Seats (Total: 8)
	MW 3:00pm - 4:15pm	JMP 1202

ENFP629 **Selected Topics**

(Perm req)

Current research, studies in fire protection engineering. Future trends and significant changes in research, professional areas. The professional standards process.

Contact department for information to register for this course.

ENFP649 **Special Problems**

(Perm req)

Advanced topics selected by the faculty from the current literature to suit the special needs and background of students, or for individual students who have definite plans of individual study.

Prerequisite: permission of department.

Contact department for information to register for this course.

ENFP651 **Advanced Fire Dynamics**

(Perm req)

Prerequisite: ENFP312. Jointly offered with: ENFP415. Credit only granted for: ENFP629A, ENFP651 or ENFP415. Formerly: ENFP629A.

A review of the basic chemistry and physics necessary to understanding fire dynamics; and of the physics of heat transfer and turbulent fluid flow will be given. The nature and structure of premixed and diffusion flames will be presented.

0101	Paul Anderson	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	ANS 0402

ENFP662 **Performance Based Design**

Credit only granted for: ENFP629E or ENFP662. Formerly: ENFP629E.

This on-line course demonstrates how fire science can be used to solve fire protection problems in the built environment and will provide an understanding of their performance-based design process, deterministic and risk-based analysis techniques, development of design fire scenarios, trial design development and analysis, and building lifecycle management.

EF01	Morgan Hurley, Eric Rosenbaum	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

ENFP664 **Advanced Industrial Fire Safety**

Jointly offered with ENFP464. Credit only granted for: ENFP489I, ENFP62 9I, ENFP464, or ENFP664. Formerly: ENFP489I and ENFP629I.

This class is designed to introduce students to the basics of process safety with a focus on the methods and techniques that may be utilized when evaluating the existing or proposed safety protection solutions in industrial facilities. An emphasis is placed on properly identifying the hazards that are present, the risk exposure, and how best to address the risk. The foundation is laid by presenting the necessary background information on industrial processes and integrating this information with applicable fire/explosion safety science.

0101	Noah Ryder, Andrew Kohout	Seats (Total: 15)
	M 5:00pm - 7:50pm	EGR 1102

ENFP799 **Master's Thesis Research**

(Perm req)

Development and completion of Master's Thesis.

Contact department for information to register for this course.

ENGL English Fall 2023

English as a second language classes are listed under UMEI. For more detailed course descriptions, click here to visit the English department website.

ENGL101 **Academic Writing**

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Students with a TWSE score below 33 must take ENGL 101A in place of ENGL101. Students for whom English is a second language should consider taking ENGL101X in place of ENGL101.

Click here for more course information.

0001	John Tobin MWF 8:00am - 8:50am	Seats (Total: 19) TWS 1313
0002	Janet Shim MWF 8:00am - 8:50am	Seats (Total: 19) TWS 1321
0102	Janet Shim MWF 9:00am - 9:50am	Seats (Total: 19) TWS 1321
0103	John Rendeiro MWF 9:00am - 9:50am	Seats (Total: 19) KEY 0124
0108	Alan Montroso MWF 9:00am - 9:50am	Seats (Total: 19) TWS 3136
0201	Anthony Batts MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1313
0202	Janet Shim MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1321
0204	Porter Olsen MWF 10:00am - 10:50am	Seats (Total: 19) KEY 0121
0205	Paul Cote MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1320
0208	Alan Montroso MWF 10:00am - 10:50am	Seats (Total: 19) KEY 0124
0301	Andrew Howard MWF 11:00am - 11:50am	Seats (Total: 19) KNI 1206
0303	Porter Olsen MWF 11:00am - 11:50am	Seats (Total: 19) KEY 0124

0304	Anthony Batts MWF 11:00am - 11:50am	Seats (Total: 19) ASY 3217
0305	Paul Cote MWF 11:00am - 11:50am	Seats (Total: 19) TWS 3134
0306	Timmy Bridgeman MWF 11:00am - 11:50am	Seats (Total: 19) KEY 0119
0401	John Tobin MWF 12:00pm - 12:50pm	Seats (Total: 19) ASY 3207
0402	Himadri Agarwal MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 3132
0403	William Pittman MWF 12:00pm - 12:50pm	Seats (Total: 19) ASY 3219
0405	Joshua Weiss MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 3252
0502	James Rankin MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 3132
0503	Subraj Singh MWF 1:00pm - 1:50pm	Seats (Total: 19) KEY 0119
0504	Victoria Moten MWF 1:00pm - 1:50pm	Seats (Total: 19) KEY 0123
0505	Catherine Byrne MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 1321
0508	John Rendeiro MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 1313
0603	Porter Olsen MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 3134
0605	John Rendeiro MWF 2:00pm - 2:50pm	Seats (Total: 19) EDU 3236

0607	Leela Chantrelle MWF 2:00pm - 2:50pm	Seats (Total: 19) ASY 3221
1001	Susan Pramschufer TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 3250
1002	Catherine Byrne TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 3252
1102	Noah Mastruserio TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 3250
1103	Morgan Robinson TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 3134
1109	Stephanie Allen TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 1105
1203	Brandee Pettus TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 3134
1205	Sonney Wolfe TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0121
1206	Peter Grybauskas TuTh 11:00am - 12:15pm	Seats (Total: 19) ASY 3221
1208	Nasim DarouieHaghighi TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1313
1209	Sabrina Islam TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 3250
1210	Stephanie Allen TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1105
1302	Kassiah Drummond TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 3252
1303	Sabrina Islam TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 3136

1304	Lara Payne TuTh 12:30pm - 1:45pm	Seats (Total: 19) KEY 0119
1305	Peter Grybauskas TuTh 12:30pm - 1:45pm	Seats (Total: 19) ASY 3219
1306	Anne Bolgiano TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 1320
1307	Heather McHale TuTh 12:30pm - 1:45pm *Restricted to students in Institute of Applied Agriculture.*	Seats (Total: 0) JUL 1123
1308	Nasim DarouieHaghighi TuTh 12:30pm - 1:45pm	Seats (Total: 19) ASY 3217
1401	John Macintosh TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 3136
1402	Anna Cronan TuTh 2:00pm - 3:15pm	Seats (Total: 19) ASY 3221
1403	James Perla TuTh 2:00pm - 3:15pm	Seats (Total: 19) KEY 0121
1404	Anne Bolgiano TuTh 2:00pm - 3:15pm	Seats (Total: 19) KEY 0119
1405	Sabrina Islam TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0224
1406	Nahid Ahmadian TuTh 2:00pm - 3:15pm	Seats (Total: 19) KEY 0124
9001	Radford Skudrna Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 19) KEY 0120 ONLINE
9002	Radford Skudrna Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 19) KEY 0120 ONLINE

9003	Erica Cochran Th 9:30am - 10:45am Tu 9:30am - 10:45am	Seats (Total: 19) KEY 0120 ONLINE
9004	Rachel Waugh Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 19) KEY 0120 ONLINE
9005	Catherine Bayly MF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9006	David Brookshire MF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9007	David Brookshire MF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9008	David Brookshire MF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9009	Sarah Goodson MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 19) ASY 3221 ONLINE
9010	Robert Lucci MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) ASY 3221 ONLINE
9011	Robert Lucci MW 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) ASY 3221 ONLINE
9012	Robert Lucci MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) ASY 3221 ONLINE

9013	Yvonne Roe Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 19) KEY 0123 ONLINE
9014	Yvonne Roe Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 19) KEY 0123 ONLINE
9015	Xiaofang Huang Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 19) KEY 0120 ONLINE
9016	Radford Skudrna Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 19) KEY 0120 ONLINE
9017	John Macintosh Th 9:30am - 10:45am Tu 9:30am - 10:45am	Seats (Total: 19) KEY 0123 ONLINE
9018	Nia Crawford Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 19) KEY 0123 ONLINE
9019	Rachel Waugh Th 12:30pm - 1:45pm Tu 12:30pm - 1:45pm	Seats (Total: 19) KEY 0120 ONLINE
9020	Nia Crawford Th 2:00pm - 3:15pm Tu 2:00pm - 3:15pm	Seats (Total: 19) KEY 0120 ONLINE
9021	Radford Skudrna Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 19) KEY 0124 ONLINE
9022	Susan Pramschufer Th 12:30pm - 1:45pm Tu 12:30pm - 1:45pm	Seats (Total: 19) KEY 0124 ONLINE

9023	David Brookshire MF 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0121 ONLINE
9024	Sonney Wolfe Tu 5:00pm - 6:15pm Th 5:00pm - 6:15pm	Seats (Total: 19) JMZ 1117 ONLINE
9025	Xiaofang Huang Tu 5:00pm - 6:15pm Th 5:00pm - 6:15pm	Seats (Total: 19) ONLINE JMZ 1117
9026	Robert Lucci Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 19) JMZ 1122 ONLINE
9028	Xiaofang Huang Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 19) KEY 0119 ONLINE
9029	John Macintosh Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 19) KEY 0119 ONLINE
FC01	Gregory Deinert MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0121
FC02	Marina Ellis MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0121
FC03	Dylan Carpenter MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0102
FC04	Sydney Sharpstene MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0119

FC05	Marina Ellis MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0123
FC06	Brian Davis MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0120
FC07	Marina Ellis MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0123
FC08	Nahid Ahmadian TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0123
FC09	Liam Daley TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0121
FC10	Liam Daley TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) ASY 3219
FC11	Nahid Ahmadian TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0120
FC12	Dylan Carpenter MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0124
FC13	Robert Harris TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0120
FC14	Anne Bolgiano TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0119

FC15	Lucy Sheehan TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0123
FC16	Mariko Carson TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) TWS 0207
FC17	Dylan Carpenter TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0121
FC18	Anne Bolgiano TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0120
FC19	Victoria Moten MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0120
FC20	Gregory Deinert MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0120
FC21	Andrew Howard MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0123
FC22	Andi Sauer TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) TLF 0110
FC23	Andrew Howard MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0123
FC24	Mariko Carson TuTh 6:00pm - 7:15pm *Restricted to Freshmen Connection Students.*	Seats (Total: 19) TWS 0207

FC25	Sydney Sharpstene MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) JMZ 1103
FC26	Sydney Sharpstene MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0119
FC27	Sydney Sharpstene MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0121

ENGL101A **Academic Writing**

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Students should take ENGL 101A rather than ENGL 101 if their TWSE score (a subscore of the SAT verbal) is 33 or below.

1702	Nasim DarouieHaghighi TuTh 9:30am - 10:45am	Seats (Total: 15) TWS 3132
1703	Andrew Howard MWF 12:00pm - 12:50pm	Seats (Total: 15) KEY 0119

ENGL101C **Academic Writing**

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Restricted to students in the Civicus Program.

0209	Joshua Weiss MWF 10:00am - 10:50am	Seats (Total: 19) SOM 0101
0309	Joshua Weiss MWF 11:00am - 11:50am	Seats (Total: 19) SOM 0101

ENGL101H **Academic Writing**

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

For general honors students or students with a verbal SAT of 600 or better.

0109	Katherine Joshi MWF 9:00am - 9:50am	Seats (Total: 19) TWS 3134
0210	Katherine Joshi MWF 10:00am - 10:50am	Seats (Total: 19) TWS 3136
0310	Katherine Joshi MWF 11:00am - 11:50am	Seats (Total: 19) TWS 3136
0407	Katherine Joshi MWF 12:00pm - 12:50pm	Seats (Total: 19) ASY 3217
0507	Sarah Goodson MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 3250
1001	Gregory Deinert TuTh 8:00am - 9:15am	Seats (Total: 19) CCC 1105
1107	Aubrey Zinn TuTh 9:30am - 10:45am	Seats (Total: 19) ASY 3221

ENGL101S **Academic Writing**

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

This course is restricted to College Park Scholars.

0110	Mike Kolakoski MWF 9:00am - 9:50am	Seats (Total: 19) CCC 1105
0211	Mike Kolakoski MWF 10:00am - 10:50am	Seats (Total: 19) CCC 1105

0212	William Pittman MWF 10:00am - 10:50am	Seats (Total: 19) CCC 1115
0311	Mike Kolakoski MWF 11:00am - 11:50am	Seats (Total: 19) CCC 1105
0312	Aubrey Zinn MWF 11:00am - 11:50am	Seats (Total: 19) CCC 1115
0410	Mike Kolakoski MWF 12:00pm - 12:50pm	Seats (Total: 19) CCC 1105
0509	Anthony Batts MWF 1:00pm - 1:50pm	Seats (Total: 19) CCC 1105
0607	Anthony Batts MWF 2:00pm - 2:50pm	Seats (Total: 19) CCC 1105
1108	Gregory Deinert TuTh 9:30am - 10:45am	Seats (Total: 19) CCC 1105
1209	Kara Pleasants TuTh 11:00am - 12:15pm	Seats (Total: 19) CCC 1115
1210	Tom Hatcher TuTh 11:00am - 12:15pm	Seats (Total: 19) ATL 1434
1308	Tom Hatcher TuTh 12:30pm - 1:45pm	Seats (Total: 19) CCC 1115
1401	Tom Hatcher TuTh 2:00pm - 3:15pm	Seats (Total: 19) ATL 2316
9001	Catherine Bayly MF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) CCC 1115 ONLINE
9002	Catherine Bayly MF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) CCC 1115 ONLINE

ENGL101X **Academic Writing**

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Limited to students for whom English is a second language. The following are indications that a student should register for English 101X: 1) an iBT TOEFL score of 100 overall, with a writing section score of at least 24; 2) an IELTS score of 7.0 overall, with a writing score of at least 7.0; 3) satisfactory completion of UMEI 005: Advanced English as a Foreign Language.

2002	Laura Williams TuTh 9:30am - 10:45am	Seats (Total: 18) ASY 3219	
2003	Laura Williams TuTh 12:30pm - 1:45pm	Seats (Total: 18) TWS 3134	
2004	Olubukola Salako MWF 10:00am - 10:50am	Seats (Total: 18) TWS 3250	
2005	Olubukola Salako MWF 12:00pm - 12:50pm	Seats (Total: 18) TWS 3250	
2007	Olubukola Salako MWF 11:00am - 11:50am	Seats (Total: 18) TWS 3250	

ENGL120 **Acting Human: Shakespeare and the Drama of Identity**

Shakespeare's ideas of dramatic realism studied through close examination of literary and dramatic techniques. How Shakespeare generates the fiction of a living, thinking person in the space of five acts, and how readers participate in the making of that fiction. Some attention to Shakespeare on film and what the playwright can teach us about different media.

0101	Gerard Passannante MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 24) TWS 1100 TWS 1106	 Discussion
0102	Gerard Passannante MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 24) TWS 1100 TWS 1321	 Discussion
0103	Gerard Passannante MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 24) TWS 1100 TWS 1106	 Discussion

0104	Gerard Passannante MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 24) TWS 1100 TWS 1320	 Discussion

ENGL126 **Why Fiction Matters**

Consider how short stories, novellas, and novels are vital to understanding our world and ourselves. Read and analyze a diverse range of twentieth- and twenty-first-century fiction, and apply the techniques of form and craft to your own experiments in fiction writing. Use critical analysis and hands-on creative experimentation to explore how fiction helps us understand the past, engage in the present, and build a better future.

0101	Gabrielle Fuentes MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 24) MMH 1400 TWS 1106	 Discussion
0102	Gabrielle Fuentes MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 24) MMH 1400 TWS 1105	 Discussion
0103	Gabrielle Fuentes MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 24) MMH 1400 TWS 1105	 Discussion
0104	Gabrielle Fuentes MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 24) MMH 1400 TWS 1106	 Discussion
0105	Gabrielle Fuentes MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 24) MMH 1400 ASY 3221	 Discussion
0106	Gabrielle Fuentes MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 24) MMH 1400 ASY 3221	 Discussion

ENGL130 **Race and the Cultural Politics of Blood: A Historical Perspective**

Exploration of race, as term and concept, at three different historical times and from three different perspectives, through the reading of three stories: William Shakespeare's drama Othello, Aphra Behn's novella Oroonoko, and the short story Benito Cereno by Herman Melville. Exploration of the importance of context in interpretation. Study of how a concept for rationalizing human difference appears and adapts, fuses and fades away, relocates and is repurposed. How understanding of the particular situation of the concept, its context, changes our reading of the story.

0101	Kim Coles MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 24) TWS 1310 KEY 0123		Discussion
0102	Kim Coles MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 24) TWS 1310 KEY 0123		Discussion

ENGL140 **American Fictions: U.S. Literature, History, Politics, and Constitutional Law**

Works of American literature explored in the context of major texts and developments of U.S. history, culture, politics, and constitutional law. We begin with the Declaration of Independence and the U.S. Constitution, and survey the course of American literature and history, from 1776 to the present, in relation to defining political and constitutional issues. Readings of canonical works like "Huckleberry Finn" and "The Grapes of Wrath" coupled with special attention to minority authors and issues, and horizons of constitutional contemplation opened up by minority, immigrant, and women's voices and experiences. Key historical and political issues include human rights; equal protection; religious tolerance; democratic principles; republican structures of government; independence; revolution; slavery; removal; immigration; free speech; labor rights; civil rights; feminism; environmentalism; international law and flows of people; economic globalization; technology and digital innovation; and the role that literature and the humanities play in fostering various forms of civil society, multiculturalism, and a globally accountable citizenship.

0101	GerShun Avilez MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 24) TWS 1100 TWS 0221		Discussion
0102	GerShun Avilez MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 24) TWS 1100 TWS 0221		Discussion
0103	GerShun Avilez MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 24) TWS 1100 TWS 0221		Discussion
0104	GerShun Avilez MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 24) TWS 1100 ASY 3221		Discussion

ENGL143C **Visualizing Knowledge: From Data to Images**

Explores how technology and people shape our current age of information through the various forms of visually representing information. Visualizations do not show us things that are evident--visualizations make things evident. We will thus examine the history of visualization practices, the theories of image-making that guide their production, and the current state of the art. Students will engage critically with a wide range of information visualization practices to gain an understanding of the work involved in producing them and their histories. Students will also seek out contemporary visualizations, interact with the practitioners who produce them, and produce their own visualization as a response or critique.

Restricted to students in Carillon Communities.

0101	Oliver Gaycken	Seats (Total: 48)
	MW 2:00pm - 3:15pm	TWS 0310

ENGL201 **Inventing Western Literature: Ancient and Medieval Traditions**

Wide range of texts, genres, and themes from ancient and medieval Western traditions. Study of cultural, historical, and artistic forces shaping traditions, and the influence and relevance of those traditions to life in twenty-first century.

Contact department for information to register for this course.

ENGL202 **Inventing Western Literature: Renaissance to Modern**

Wide range of texts from the Renaissance to the 21st century. Themes and literary techniques in the evolution of Western literature. Print publication, industrialization, questioning of religious, political, intellectual, and cultural authority.

Contact department for information to register for this course.

ENGL211 **English Literature: Beginnings to 1800**

Surveys medieval and early modern literary works written in England. Readings may include Beowulf, Chaucer, Spenser, Mary Wroth, Milton; eighteenth-century satire, drama, novels.

Contact department for information to register for this course.

ENGL222 **American Literature(s)**

Explore American literary traditions in a variety of poetic and narrative forms and in diverse historical contexts, ranging from colonization to the Civil Rights Movement and beyond. Genres examined in this course might include lyric poems, travel narratives, gothic short fiction, slave narratives, and science fiction. Emphasis on developing skills of literary interpretation and critical writing, while attending to the place of race, class, gender, and sexuality in American literary culture. Authors may include Phillis Wheatley, Herman Melville, Walt Whitman, Emily Dickinson, Frederick Douglass, Gertrude Stein, F. Scott Fitzgerald, James Baldwin, and Toni Morrison, among others.

0301	Xiaofang Huang	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TWS 0214

ENGL234 **African-American Literature and Culture**

Cross-listed with: AASP298L. Credit only granted for: ENGL234 or AASP298L.

An exploration of the stories black authors tell about themselves, their communities, and the nation as informed by time and place, gender, sexuality, and class. African American perspective themes such as art, childhood, sexuality, marriage, alienation and mortality, as well as representations of slavery, Reconstruction, racial violence and the Nadir, legalized racism and segregation, black patriotism and black ex-patriots, the optimism of integration, and the prospects of a post-racial America.

Cross-listed with AASP298L. Credit will be granted for one of the following: AASP298L or ENGL234.

0201	Anthony Batts	Seats (Total: 30)
	MWF 12:00pm - 12:50pm	TWS 0234

ENGL235 U.S. Latinx Literature and Culture

Cross-listed with: AMST298Q. Credit only granted for: ENGL235 or AMST298Q.

Examines the poetry, prose, and theater of Latinx communities in the United States from their origins in the Spanish colonization of North America to their ongoing development in the 21st century. Considers how authors use literary form to gain insight into human experience, including mortality, religious belief, gender and sexuality, war and peace, family, language use, scientific inquiry, cultural tradition, ecology, and labor. Also studies how Latinx literary traditions have shaped and been shaped by broader currents in American literature, as well as what connections exist between Latinx literature and social and artistic developments in other parts of the world, particularly Latin America and the Caribbean. Authors may include Alvar Nunez Cabeza de Vaca, Eulalia Perez, Juan Nepomuceno Seguin, Maria Amparo Ruiz de Burton, Jose Marti, Arthur A. Schomburg, Jesus Colon, Julia de Burgos, Cesar Chavez, Ariel Dorfman, Gloria Anzaldua, Junot Diaz, and Cristina Garcia.

0101	Sarah Dammeyer	Seats (Total: 30)
	MW 5:00pm - 6:15pm	TWS 0214

ENGL240 Introduction to Fiction, Poetry, and Drama

Readings in the novel, short story, poetry and drama.

Contact department for information to register for this course.

ENGL243 What is Poetry?

An exploration of arguably the most complex, profound, and ubiquitous expression of human experience. Study through close reading of significant forms and conventions of Western poetic tradition. Poetry's roots in oral and folk traditions and connections to popular song forms.

0201	Christopher Crane	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	ESJ B0322

ENGL244 The Play's the Thing

Exploration of drama through a consideration of plot, narrative flow, analytical flow, staging, performance, manuscript and printing history, text and textual change over time, and interpretation. Plays will be approached as public attempts to understand what it means to be alive.

0101	Michael Olmert MW 2:00pm - 3:15pm	Seats (Total: 30) TWS 0221	

ENGL245 **Film Form and Culture**

Cross-listed with: CINE245. Credit only granted for: ENGL245, CINE245 or FILM245. Formerly: FILM245.

Introduction to film as art form and how films create meaning. Basic film terminology; fundamental principles of film form, film narrative, and film history. Examination of film technique and style over past one hundred years. Social and economic functions of film within broader institutional, economic, and cultural contexts.

0101	Oliver Gaycken MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 23) TWS 0320 ASY 3219	 Discussion
0102	Oliver Gaycken MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 23) TWS 0320 TWS 0214	 Discussion
0103	Oliver Gaycken MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) TWS 0320 ASY 3221	 Discussion
0104	Oliver Gaycken MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 23) TWS 0320 ASY 3219	 Discussion
FC01	Brian Davis M 6:00pm - 7:15pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 24) KEY 0121 ONLINE	

ENGL250 **Reading Women Writing**

Cross-listed with: WGSS255. Credit only granted for: ENGL250, WMST255 or WGSS255. Formerly: WMST255.

Explores literary and cultural expressions by women and their receptions within a range of historical periods and genres. Topics such as what does a woman need in order to write, what role does gender play in the production, consumption, and interpretation of texts, and to what extent do women comprise a distinct literary subculture. Interpretation of texts will be guided by feminist and gender theory, ways of reading that have emerged as important to literary studies over the last four decades.

0101	Danuta Hinc	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TWS 0221

ENGL254 **Introduction to Humanities, Health, and Medicine**

(Perm req)

Restriction: Permission of ARHU-English Department. Cross-listed with: ARHU230, HIST219N, WGSS230. Credit only granted for: ARHU230 , ENGL289C, ENGL254, ARHU298A, HIST219N, or WGSS230.

An overview of the historical, cultural, ethical, and spiritual dimensions of medicine, human health, disease, and death from the points of view of various humanistic disciplines.

0101	Michelle Moncrieffe	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	KEY 0125

ENGL255 **Literature of Science and Technology**

Examines science and technology through the lens of British and American literature, primarily between 1800 and the present. Readings from early natural and experimental philosophers of the Scientific Revolution and Enlightenment. How literary works represent the ethics of science and technology; beneficial developments of science, and also heavy toll of industrialization. Writers studied may include Francis Bacon, Mary Shelley, Charles Darwin, H.G. Wells, Albert Einstein, Aldous Huxley, Richard Feynman, Philip K. Dick, Octavia Butler, Michael Frayn, and Tom Stoppard.

0101	Emilee Durand	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	KEY 0121

ENGL256 **Fantasy Literature**

How fantasy employs alternate forms of representation, such as the fantastical, estranging, or impossible, which other genres would not allow. Through novels, short stories, graphic novels, and film, traces fantasy's roots in mythology and folklore, then explores how modern texts build upon or challenge these origins. Examination of literary strategies texts use to represent the world through speculative modes. How to distinguish fantasy from, and relate it to, other genres such as science fiction, horror, fairly tales, and magical realism. Fantasy's investment in world-building, history, tradition, and categories of identity such as race, class, and gender. How fantasy, as a genre, form, and world-view, is well-suited to our contemporary reality.

0101	Porter Olsen	Seats (Total: 30)
	MWF 12:00pm - 12:50pm	TWS 0221

ENGL257 **Children's Literature**

Literature of the nineteenth through the twenty-first century concerned with, and written for, children and young adults. How such narratives speak to themes of changing social, religious, political, and personal identity. Through poetry, novels, graphic novels, and film, explores how children's tales encapsulate and reflect on human existence, while pushing boundaries of what constitutes "children's literature" and what exactly defines the "child." Considers questions of literary classification through investigation of political and religious issues, gender politics, animal rights, social justice, race, war, and what it means to "grow up."

0101	Shannon Zellars Strohl MW 3:30pm - 4:45pm	Seats (Total: 30) ONLINE
FC01	Peter Witte MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0205

ENGL262 **Introduction to the Hebrew Bible/Old Testament**

Cross-listed with: JWST262, HEBR298B. Credit only granted for: JWST262, HEBR298B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

0101	Matthew Suriano MW 2:00pm - 3:15pm	Seats (Total: 25) SQH 1103

ENGL265 **LGBTQ+ Literatures and Media**

Restriction: Must not have completed LGBT265. Cross-listed with: LGBT265. Credit only granted for: ENGL265 or LGBT265.

A study of literary and cultural expressions of queer and trans identities, positionalities, and analytics through an exploration of literature, art, and media. We will examine historical and political power relations by considering the intersections of sexuality and gender with race, class, nation, and disability. Topics include the social construction and regulation of sexuality and gender, performance and performativity, intersectionality, and the relationship between aesthetic forms and queer/ trans subjectivity. Our interpretations will be informed by queer and trans theories.

0101	Tyra Griffin TuTh 12:30pm - 1:45pm	Seats (Total: 30) TWS 0221
0201	Dylan Lewis TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 1106

ENGL269A **Special Topics in Study Abroad II; German Romanticism in its European Context**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269B **Special Topics in Study Abroad II; Writing Workshop I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269C **Special Topics in Study Abroad II; Writing Workshop II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269R **Special Topics in Study Abroad II; Writing Rome**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL271 **Writing Poems and Stories: An Introductory Workshop**

Introduction to theory and practice of writing fiction and poetry. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Nicole Cuffy TuTh 11:00am - 12:15pm	Seats (Total: 15) KEY 0124
0102	Nicole Cuffy TuTh 11:00am - 12:15pm *Restricted to students in Jimenez-Porter Writers' House.*	Seats (Total: 5) KEY 0124
0201	Eric Baker MW 2:00pm - 3:15pm	Seats (Total: 20) KEY 0119
0301	Preet Bhela TuTh 8:00am - 9:15am	Seats (Total: 20) KEY 0120
FC01	Thomas Earles TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 17) KEY 0123

ENGL272 **Writing Fiction: A Beginning Workshop**

Introduction to theory and practice of writing fiction. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Anna Cronan TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0119
0201	Eliamani Ismail MW 2:00pm - 3:15pm	Seats (Total: 20) KEY 0120
0301	Edward Daschle TuTh 8:00am - 9:15am	Seats (Total: 20) KEY 0121
0401	Edward Daschle TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0121

ENGL273 **Writing Poetry: A Beginning Workshop**

Introduction to theory and practice of writing poetry. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Ava Serra MWF 11:00am - 11:50am	Seats (Total: 20) LEF 1171
0201	Kassiah Drummond TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0124

ENGL275 **Scriptwriting for Theater, Film, and Television**

Cross-listed with: ARHU275. Credit only granted for: ENGL275 or ARHU275.

Introduction to the theory and practice of scriptwriting with an opportunity to read, view, evaluate, write, and revise texts meant to be performed. Students will practice writing for the stage, film, and television and also examine selected scripts, performances, and film and television clips as models for their own creative work. Students will complete frequent writing exercises, participate in workshops, and learn to apply scholarship to the analysis and critique of scripts.

Cross-listed with ARHU275.

0101	Jay Wilcox MWF 9:00am - 9:50am	Seats (Total: 15) KEY 0123
0102	Jay Wilcox MWF 9:00am - 9:50am *Restricted to students in the Jimenez-Porter Writers' House.*	Seats (Total: 5) KEY 0123

0201	Jay Wilcox	Seats (Total: 20)
	MWF 10:00am - 10:50am	KEY 0123

ENGL278B **Special Topics in Literature; German Romanticism in its European Context**
Contact department for information to register for this course.

ENGL278N **Special Topics in Literature; The Romantic Experience in Europe**
Contact department for information to register for this course.

ENGL278O **Special Topics in Literature; German Romanticism in its European Context**
Contact department for information to register for this course.

ENGL280 **The English Language**

Introduction to the structure of English and its historical development, with a focus on techniques of linguistic analysis. Major topics include the sound systems of English and its patterns of word formation and sentence structure, and the ways these have changed over time and vary around the world.

0201	Michael Israel	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TWS 0214

ENGL282 **How Rhetoric Works: Persuasive Power and Strategies**

Examines how persuasion functions and influences our lives and perception, focusing on a variety of contexts: business, politics, media, law, and entertainment. Students learn persuasive and argumentative principles to understand what rhetoric is, how it works, and what it does, and to apply the knowledge to produce effective communication appropriate for their purpose, audience, and context. A wide range of persuasive media, genres, and forms will be studied to help students sharpen how they interpret and practice persuasion.

0101	Alexis Walston	Seats (Total: 30)
	MWF 1:00pm - 1:50pm	TWS 0214

ENGL290 **Introduction to Digital Studies**

Introductory course in digital studies. Surveys contemporary humanities work in digital technologies, including the web and social media and their historical antecedents. Explores design and making as analytical tools alongside reading and writing. Situates digital media within power and politics and develops critical awareness of how media shape society and ethics. Interdisciplinary approaches to creativity, analysis, and technology. While the course will include hands-on practice, no prior experience of programming, designing, or making required other than a willingness to experiment and play.

0101	Kevin Wisniewski	Seats (Total: 20)
	TuTh 5:00pm - 6:15pm	ASY 3221

ENGL291 **Writing, Revising, Persuading**

Prerequisite: Must have satisfied Fundamental Studies Academic Writing requirement.

Intermediate-level, writing-intensive course for students who have successfully satisfied the Fundamental Studies Academic Writing requirement but wish to hone skills in analyzing and producing rhetorically attuned, well-styled prose. Deeper study of rhetorical theory and its application to a wide variety of arguments and situations. Additional writing practice, techniques of revision, study of effect of stylistic choices. Topics may include argumentation theory, visual rhetoric, stylistic theory, and writing theory.

0101	Esthus Amos MWF 12:00pm - 12:50pm	Seats (Total: 20) TWS 1320

ENGL293 **Writing in the Wireless World**

Recommended: ENGL101.

A hands-on exploration of writing at the intersection of technology and rhetoric. Students will learn to read, analyze, and compose the kinds of multimodal documents--documents combining text, image, and sound--that constitute communication in our digital world.

0101	Sarah Goodson MW 2:00pm - 3:15pm	Seats (Total: 22) TWS 0230

ENGL295 **Introduction to Digital Storytelling and Poetics**

What is the thread weaving through an animated visualization of economic data in a popular newspaper, an indie text-based videogame, a saucy twitter bot spitting out haikus, and an interactive digital essay? Storytelling--using whatever is at hand to communicate with audiences in evocative and connected ways. Combining technical and textual analysis with their own experiments in digital composition, students will learn to use new media techniques for the interpretation, creation, and dissemination of both critical and imaginative writing. From branching narratives to hypertext media and video games, to more recent developments in machine-generated poetry, XR, and embodied and location-based narrative, the methods and materials in this introductory course link creative expression and analysis of texts to contemporary conversations about social difference, representation, interface, and computation.

0101	Marisa Parham M 6:30pm - 9:00pm	Seats (Total: 25) ESJ B0320

ENGL296 **Reading and Writing Disability**

Locates and analyzes disability in various settings, modes, and texts. Investigates the material and cultural effects of the language, stories, and myths of disability. Explores the many definitions and frameworks of disability: as dynamic lived experiences, as a political identity, as a rich culture, as socially constructed barriers, and as an oppressed minority group. Examines how disability is portrayed, controlled, stereotyped, and celebrated across social, medical, political, cultural, and personal networks.

0101	Alan Montroso MWF 11:00am - 11:50am	Seats (Total: 20) KEY 0121

ENGL297 **Research and Writing in the Workplace**

Prerequisite: ENGL101.

Introduction to the rhetorical principles and professional practices of professional writing, particularly the research, writing, communication, analytical, and technological skills needed for the Professional Writing minor. How culture and technology relate to the work of professional writing; design principles and rhetorical moves; digital tools, research skills, and writing strategies of professional writers. Develops skills needed to publish a writing portfolio that showcases students' professional writing competencies and projects their professional writer identities.

0101	Elizabeth Marshall MW 2:00pm - 3:15pm	Seats (Total: 22) TWS 0224
0201	Sonney Wolfe TuTh 2:00pm - 3:15pm	Seats (Total: 22) TWS 0230

ENGL301 **This is English: Fields and Methods**

Restriction: Must be in English Language and Literature program; or must be in Secondary Educ: English Language Arts program.

"English" means a lot of things. Are you looking for literature, or linguistics? For writing--creative, critical, or professional? For theater, or debate? For film, or even videogames? This gateway course for the English major introduces you to all of these areas and more, as well as to our discipline's unique resources for studying and enjoying them. The English discipline includes three main interpretive fields: Literary and Cultural Studies; Language, Writing, and Rhetoric; and Media Studies. This course brings together the fundamental concepts and methods for reading, viewing, and researching practiced in these fields, launching you into English studies and and helping you to choose the major track that is right for you.

0101	Christina Walter TuTh 11:00am - 12:15pm	Seats (Total: 15) TWS 3132
0201	Sharada Balachandran Orihuela MW 2:00pm - 3:15pm	Seats (Total: 15) TWS 3132
0301	David Simon TuTh 12:30pm - 1:45pm	Seats (Total: 15) TWS 3132
0401	Brian Richardson MW 5:00pm - 6:15pm	Seats (Total: 15) TWS 3132

ENGL302 **Medieval Literature in Translation**

Surveys major works of English and continental Middle Ages. Readings may include romance, lyric and drama, Germanic epic, works of Dante, Chretien de Troyes, Jean de Meun, Christine de Pisan, Malory, English and continental mystics.

Contact department for information to register for this course.

ENGL305 **Early Drama**

Explore medieval and Renaissance drama and performance, placing the Shakespearean stage in its cultural and historical contexts.

Contact department for information to register for this course.

ENGL308E **Special Topics in Shakespeare; Multimedia Shakespeares**

A topical exploration of William Shakespeare's plays and poems as well as their cultural contexts, performance history, and the roles they play in modern and contemporary culture

0101	Karen Nelson TuTh 3:30pm - 4:45pm	Seats (Total: 25) TWS 0221

ENGL313 **American Literature**

A detailed study of selected major texts of American literature from the 17th century to the 20th century. Issues such as race, gender, and regionalism. Authors such as Franklin, Hawthorne, Dickinson, Hemingway, and Morrison.

0101	Robert Levine MW 3:30pm - 4:45pm	Seats (Total: 25) TWS 0214

ENGL319C **Special Topics in Science, Literature, and Media; From Frankenstein to Dracula: the Monstrous and Fantastic in Nineteenth-Century Literature**

A topical investigation of the ways that science, art, and technology provoke ideas and innovation across their disciplinary boundaries within specific historical moments and locations.

0101	Gerard Holmes TuTh 2:00pm - 3:15pm	Seats (Total: 25) TWS 0221

ENGL329C **Special Topics in Film Studies; Sexuality in the Cinema**

Studies in various periods and genres of film.

Cross-listed with CMLT398L. Credit will be granted for only one of the following: CMLT398L, CMLT498L, or ENGL329C.

0101	Eugene Robinson Class time/details on ELMs	Seats (Total: 25) ONLINE

ENGL329F **Special Topics in Film Studies; David Bowie, Film, and Audio-Visual Media**

Studies in various periods and genres of film.

Prerequisite: ENGL245, FILM245, CINE245, FILM283, or SLLC283; or permission of instructor. Also offered as CINE319A. Credit only granted for CINE319A or ENGL329F.

0101	Paul Cote MWF 12:00pm - 12:50pm	Seats (Total: 25) JMZ 0118

ENGL329I **Special Topics in Film Studies; Film and the Fantastic: Fantasy Films from Melies to Marvel**

Studies in various periods and genres of film.

Prerequisite: ENGL245, FILM245, CINE245, SLLC283, or FILM283; or permission of instructor. Also offered as CINE344. Credit granted for ENGL329I or CINE344.

0101	Paul Cote MWF 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0103

ENGL329J **Special Topics in Film Studies; The Films of Alfred Hitchcock**

Studies in various periods and genres of film.

Prerequisite: ENGL245, FILM245, or CINE245; or permission of ARHU- College of Arts & Humanities. Also offered as CINE345. Credit only granted for FILM345, CINE345 or ENGL329J.

0101	Marianne Conroy TuTh 12:30pm - 1:45pm	Seats (Total: 25) TWS 0234

ENGL329V **Special Topics in Film Studies; Presentations of London in Modern European Literature Film and Fine Art**

Studies in various periods and genres of film.

Contact department for information to register for this course.

ENGL344 **Nineteenth-Century Fiction**

Major British, American, and other fiction writers of the nineteenth century studied in the context of the broad global, intellectual, and artistic interests of the century.

0101	Jason Rudy MWF 1:00pm - 1:50pm	Seats (Total: 25) TWS 0221

ENGL349A **Asian American Literatures; Global Capitalism, Migration, Belonging**

Study of selected writers, particular themes, or genres in Asian American literatures.

Cross-listed with AAST398Q. Credit only granted for ENGL349A or AAST398Q.

0101	Rebecca Liu TuTh 5:00pm - 6:15pm	Seats (Total: 25) TWS 0221

ENGL352 **Intermediate Fiction Workshop**

(Perm req)

Prerequisite: Minimum grade of A- in ENGL271 or ENGL272; or permission of ARHU-English department.

A class in the making of fiction. Intensive discussion of students' own fiction. Readings include both fiction and essays about fiction by practicing writers. Writing short critical papers, responding to works of fiction, and the fiction of colleagues, in-class writing exercises, intensive reading, and thinking about literature, in equal parts, and attendance at readings.

0101	Rion Scott M 3:30pm - 6:00pm	Seats (Total: 15) TWS 3250
0301	Rachel Waugh Tu 3:30pm - 6:00pm	Seats (Total: 15) TWS 3134

ENGL353 **Intermediate Poetry Workshop**

(Perm req)

Prerequisite: Minimum grade of A- in ENGL271 or ENGL273; or permission of ARHU-English department.

A class in the making of poetry. Intensive discussion of students' own poems. Readings in both poetry and essays about poetry by practicing poets. Writing short critical prose pieces, responding critically to colleagues' poems, in-class and outside writing exercises, memorization, and attendance at poetry readings.

0101	Dennis Winston M 3:30pm - 6:00pm	Seats (Total: 15) TWS 3134

ENGL358D **Special Topics in U.S. Latinx Literature; Cuban Poetry & Fiction Post-1980**

Topical study of selected works by U.S. Latinx writers.

Contact department for information to register for this course.

ENGL368B **Special Topics in African American, African, and African Diaspora Literatures; Blues and African American Folksong**

Topical study of selected literature by African American and Black Diaspora writers from Africa, the Caribbean, North and South America, and beyond.

0201	Barry Pearson TuTh 12:30pm - 1:45pm	Seats (Total: 25) TWS 1106

ENGL368D **Special Topics in African American, African, and African Diaspora Literatures; African American Folklore and Literature**

Topical study of selected literature by African American and Black Diaspora writers from Africa, the Caribbean, North and South America, and beyond.

	0201	Barry Pearson TuTh 3:30pm - 4:45pm	Seats (Total: 25) TWS 1106

ENGL369A **Special Topics in Study Abroad III; The Scene of Reading**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369B **Special Topics in Study Abroad III; Representing London: The Eighteenth Century I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369C **Special Topics in Study Abroad III; The Dickens City I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369E **Special Topics in Study Abroad III; The Crisis of Culture: Literature and Politics 1918-1948**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369F **Special Topics in Study Abroad III; British Drama from the 1950s to the Present**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369G **Special Topics in Study Abroad III; Adapting Literature to Screen**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369H **Special Topics in Study Abroad III; London Stage**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369K **Special Topics in Study Abroad III; Great Directors**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369L **Special Topics in Study Abroad III; Angloamerican Travelers in Spain**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369Q **Special Topics in Study Abroad III; Literature of the Shoah**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369Z **Special Topics in Study Abroad III; The London Stage**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL373 **Senior Honors Project**

(Perm req)

Prerequisite: ENGL370. Restriction: Must be in English Language and Literature program.

Research and writing of senior honors project. Strongly recommended for students planning graduate work.

0101	Julius Fleming	Seats (Total: 20)
	M 3:30pm - 5:30pm	TWS 3252

ENGL375 **J.R.R. Tolkien: Middle-earth and Beyond**

An in-depth look at major themes and ideas spanning Tolkien's well-known and lesser-known works across a variety of genres and styles. We will study "The Hobbit" and "The Lord of the Rings" in connection with Tolkien's back-story mythology expressed in "The Silmarillion." We will also consider film adaptations and other popular fantasy influenced by Tolkien. And we will explore lesser-known works such as "Farmer Giles of Ham," and Tolkien's essays on fairy stories and on "Beowulf.

0101	Peter Grybauskas	Seats (Total: 25)
	TuTh 9:30am - 10:45am	TWS 1320

ENGL378R **Special Topics in English; Storytelling with Code**

Offers sustained attention to notable current themes and approaches in English studies. Topics vary by section and semester.

0101	Kari Kraus	Seats (Total: 25)
	TuTh 5:00pm - 6:15pm	TWS 0214

ENGL379V **Special Topics in Literature; Gypsy Culture**

Cross-listed with CMLT398N. Credit will be granted for only one of the following: CMLT398N, CMLT498N, or ENGL379V.

0101	Eugene Robinson	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ENGL381 **MGA Legislative Seminar**

(Perm req)

Prerequisite: Students who have taken courses with comparable content may contact the department; or ENGL101. Restriction: Permission of ARHU-English department. Cross-listed with: HONR368A. Credit only granted for: HONR368A or ENGL381. Additional information: Application required. Contact english@umd.edu for more information.

Prepares students to intern for the Maryland General Assembly. Introduces standard legislative genres and assigns extended practice in researching legislative issues.

Cross-listed with HONR368A. Credit only granted for one of the following : ENGL381 or HONR368A. Admission to this course is by application only. Click here for more details.

0101	Thomas Lowderbaugh	Seats (Total: 15)
	Tu 3:30pm - 6:00pm	TWS 0232

ENGL388B **Writing, Research, and Media Internships; Mass Incarceration and Academic Writing: Teaching Academic Writing in Prison**

(Perm req)

Explore career-facing opportunities on campus, in the D.C. metro area, and beyond. English internships can be individualized, working with businesses, not-for-profit organizations, state and federal governments, high schools, and incarcerated students. We also offer structured internship pathways with the Maryland General Assembly Program, the Emily Dickinson Electronic Archives, the Writing Center, our Undergraduate Teaching Assistant Program, and BookLab, our makerspace and letterpress printing studio.

Students must obtain permission prior toregistration; if interested, please email instructor at mallios@umd.edu as soon as possible.

0101	Peter Mallios	Seats (Total: 20)
	Contact instructor or department for details.	

ENGL388D **Writing, Research, and Media Internships; Dickinson Electronic Archives**

(Perm req)

Explore career-facing opportunities on campus, in the D.C. metro area, and beyond. English internships can be individualized, working with businesses, not-for-profit organizations, state and federal governments, high schools, and incarcerated students. We also offer structured internship pathways with the Maryland General Assembly Program, the Emily Dickinson Electronic Archives, the Writing Center, our Undergraduate Teaching Assistant Program, and BookLab, our makerspace and letterpress printing studio.

Prerequisite: permission of department. Repeatable to 12 credits.

0101	Martha Nell Smith	Seats (Total: 5)
	Contact instructor or department for details.	

ENGL388E **Writing, Research, and Media Internships; BookLab Internship**

(Perm req)

Explore career-facing opportunities on campus, in the D.C. metro area, and beyond. English internships can be individualized, working with businesses, not-for-profit organizations, state and federal governments, high schools, and incarcerated students. We also offer structured internship pathways with the Maryland General Assembly Program, the Emily Dickinson Electronic Archives, the Writing Center, our Undergraduate Teaching Assistant Program, and BookLab, our makerspace and letterpress printing studio.

Prerequisite: permission of the department. Contact Professor Matthew Kirschenbaum, mgk@umd.edu

0101	Matthew Kirschenbaum	Seats (Total: 5)
	Contact instructor or department for details.	

ENGL388P **English Careers Internship**

(Perm req)

Prerequisite: Permission of ARHU-English department. Repeatable to 12 credits if content differs. Additional information: Each enrolled credit equals 45 hours of on-site internship work.

Students receive credit for an internship of their choice that focuses at least half of its work on core English skills such as writing, editing, and research. Students secure their own internship placements. Course assignments include, for instance, an activity log, reflection papers, a supervisor evaluation, and a final portfolio of work.

Prerequisite: permission of department. Repeatable to 12 credits. Contact english@umd.edu.

0101	Karen Lewis	Seats (Total: 15)
	Contact instructor or department for details.	

ENGL388T **Writing, Research, and Media Internships; Maryland Institute for Technology in the Humanities Internships**

(Perm req)

Explore career-facing opportunities on campus, in the D.C. metro area, and beyond. English internships can be individualized, working with businesses, not-for-profit organizations, state and federal governments, high schools, and incarcerated students. We also offer structured internship pathways with the Maryland General Assembly Program, the Emily Dickinson Electronic Archives, the Writing Center, our Undergraduate Teaching Assistant Program, and BookLab, our makerspace and letterpress printing studio.

Prerequisite: permission of department. Repeatable to 12 credits.

0101	Purdom Lindblad	Seats (Total: 5)
	Contact instructor or department for details.	

ENGL388V **Undergraduate Teaching Assistants in English**

(Perm req)

Prerequisite: Permission of the ARHU-English department. Repeatable to 12 credits. Additional information: Students should consult with the UTA Coordinator to determine the number of enrollment credits.

A weekly teaching practicum and concurrent internship as an undergraduate teaching assistant in an English course. Students will explore the theories and best practices of teaching and learning in the various fields of the English discipline, particularly writing and literary studies. The emphasis is on creating inclusive classrooms and working with diverse learners and is grounded in theories of critical pedagogy. Students will apply principles of learning theory to develop and facilitate learner-centered lessons and discussions. They will also study composition pedagogy in preparation for responding to student writing in the course for which they are an assistant.

Prerequisite: permission of department. Repeatable to 12 credits. Contact Lyra Hilliard, lyrahill@umd.edu. Students taking ENGL388V for the first time should register for section 0101 or 0401 for 4 credits. When taking the course again in subsequent semesters, students should register for 2001 or 3001 for 3 credits.

0101	Sarah Dammeyer W 3:30pm - 5:00pm	Seats (Total: 20) ASY 3221
0401	Lyra Hilliard Tu 3:30pm - 5:00pm	Seats (Total: 20) ASY 3221
2001	Sarah Dammeyer Contact instructor or department for details.	Seats (Total: 10)
3001	Lyra Hilliard Contact instructor or department for details.	Seats (Total: 10)

ENGL388W **Writing Center Internship**

(Perm req)

Prerequisite: Permission of the Writing Center (1205 Tawes Hall). Repeatable to 12 credits. Cross-listed with: SPAN388W. Credit only granted for: ENGL388W or SPAN388W.

Examines face-to-face and online writing center theory and practice through readings, exercises, and supervised tutoring. Students investigate the writing process and help other writers to negotiate it.

Prerequisite: permission of department. Repeatable to 12 credits. To apply, go to http://www.english.umd.edu/academics/writingcenter/internship Students taking ENGL388W for the first time should register for section 0101 for 4 credits. When taking the course again in subsequent semesters, students should register for 2001.

0101	Thomas Earles M 3:30pm - 6:00pm Contact instructor or department for details. *Students registering for 0101 should register for four credits.*	Seats (Total: 20) TWS 0224
2001	Thomas Earles Contact instructor or department for details.	Seats (Total: 4)

ENGL390 **Science Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits; and junior standing or higher. Credit only granted for: ENGL390 or ENGL393S. Formerly: ENGL393S.

Specifically designed for students interested in further study in the physical and biological sciences. Exposes students to the conventions of scientific prose in the genres of research articles and proposals. Students also learn to accommodate scientific information to general audiences.

Click here for more course information.

0301	Katherine Oneill MWF 11:00am - 11:50am *Restricted to students in Chemistry or Biochemistry major.*	Seats (Total: 19) TWS 0232
0401	Katherine Oneill MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0224
0501	Katherine Oneill MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 1105
1501	Robin Allen-Klein TuTh 3:30pm - 4:45pm	Seats (Total: 19) ASY 3215
1505	Robin Allen-Klein TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0230
1601	Richard Reynnells Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 1321
1801	Richard Reynnells W 6:30pm - 9:10pm	Seats (Total: 19) TWS 1321

9001	Aysha Jawed Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Aysha Jawed Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL390H **Science Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits; and junior standing or higher. Credit only granted for: ENGL390 or ENGL393S. Formerly: ENGL393S.

Specifically designed for students interested in further study in the physical and biological sciences. Exposes students to the conventions of scientific prose in the genres of research articles and proposals. Students also learn to accommodate scientific information to general audiences.

Restricted to students in the Honors College or departmental Honors programs.

0101	Marybeth Shea MWF 9:00am - 9:50am	Seats (Total: 19) ONLINE
0201	Katherine Oneill MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0224
0301	Marybeth Shea MWF 11:00am - 11:50am	Seats (Total: 19) ONLINE

ENGL391 **Advanced Composition**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

An advanced composition course which emphasizes constructing written arguments accommodated to real audiences.

Click here for more course information.

0401	John Rendeiro MWF 12:00pm - 12:50pm	Seats (Total: 19) KNI 1206
0402	Sarah Goodson MWF 12:00pm - 12:50pm	Seats (Total: 19) JMZ 0208
0501	Olubukola Salako MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0230

0601	Shannon Zellars Strohl MW 2:00pm - 3:15pm	Seats (Total: 19) ONLINE
0701	Catherine Byrne MW 3:30pm - 4:45pm	Seats (Total: 19) KEY 0124
1101	Catherine Byrne TuTh 9:30am - 10:45am	Seats (Total: 19) KNI 1103
1104	Daniel Sidman TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 3136
1201	John Kim TuTh 11:00am - 12:15pm	Seats (Total: 19) KNI 1206
1301	Amanda Fiore TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 1105
1302	Daniel Sidman TuTh 12:30pm - 1:45pm	Seats (Total: 19) KEY 0123
1505	Anna Josephson TuTh 5:00pm - 6:15pm	Seats (Total: 19) KEY 0119
1901	Mark Fitzgerald Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232
6103	Kathleen Orr TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1313
9001	Mark Fitzgerald Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Mark Fitzgerald Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE

9005	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Marina Ellis Class time/details on ELMs	Seats (Total: 19) ONLINE
9007	Scott Wible Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL391H **Advanced Composition**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

An advanced composition course which emphasizes constructing written arguments accommodated to real audiences.

Restricted to students in the Honors College or departmental Honors programs.

Click here for more course information.

0201	Mark Forrester MWF 10:00am - 10:50am	Seats (Total: 19) TWS 3134

ENGL392 **Legal Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Conventions of legal writing and research. Students learn how to read and write about cases, statutes, or other legislation; how to apply legal principles to fact scenarios; and how to present a written analysis for readers in the legal profession. Assignments may include the law-school application essay, case briefs, legal memos, and client letters.

Click here for more course information.

1101	John Kim TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 1321
1301	John Kim TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0230
1401	Roberta Ward TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 3252

1601	Esthus Amos M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232
1701	Esthus Amos Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232
1801	Sara Faradji W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232

ENGL393 **Technical Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Click here for more course information.

0001	Patrick Nelson MWF 8:00am - 8:50am	Seats (Total: 19) ASY 3221
0303	Joan Mooney MWF 11:00am - 11:50am	Seats (Total: 19) TWS 1313
0401	Joan Mooney MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 1313
0501	Michael Schmidt MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0232
0601	Michael Schmidt MW 2:00pm - 3:15pm	Seats (Total: 19) JMZ 2207
0801	Shannon Zellars Strohl MW 5:00pm - 6:15pm	Seats (Total: 19) ONLINE
1001	Aubrey Zinn TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1320
1102	Amanda Fiore TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0234

1201	Andrew Delfino TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0230
1202	Amanda Fiore TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 3136
1402	Amanda Fiore TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 3134
1505	Amanda Fiore TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0224
1602	Kelly Cresap M 6:30pm - 9:10pm	Seats (Total: 19) TWS 1105
1702	Sonney Wolfe Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0230
1801	Kelly Cresap W 6:30pm - 9:10pm	Seats (Total: 19) TWS 1105
1902	Patrick Nelson Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 1320
9001	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE

9007	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9008	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9009	Phillip Moses Class time/details on ELMs	Seats (Total: 19) ONLINE
9010	Phillip Moses Class time/details on ELMs	Seats (Total: 19) ONLINE
9011	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9012	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9013	Sarah Dammeyer Class time/details on ELMs	Seats (Total: 19) ONLINE
9014	Sarah Dammeyer Class time/details on ELMs	Seats (Total: 19) ONLINE
9015	Dennis Winston Class time/details on ELMs	Seats (Total: 19) ONLINE
9016	Dennis Winston Class time/details on ELMs	Seats (Total: 19) ONLINE
9017	Andrew Delfino Class time/details on ELMs	Seats (Total: 19) ONLINE
9018	Andrew Delfino Class time/details on ELMs	Seats (Total: 19) ONLINE
9019	Andrew Delfino Class time/details on ELMs	Seats (Total: 19) ONLINE
9020	Jeannette Schollaert Class time/details on ELMs	Seats (Total: 19) ONLINE

9021	Jeannette Schollaert Class time/details on ELMs	Seats (Total: 19) ONLINE
9022	Danuta Hinc Class time/details on ELMs	Seats (Total: 19) ONLINE
9023	David Miles Class time/details on ELMs	Seats (Total: 19) ONLINE
9024	David Miles Class time/details on ELMs	Seats (Total: 19) ONLINE
9025	Shannon Zellars Strohl Class time/details on ELMs	Seats (Total: 19) ONLINE
9026	Joshua Buursma Class time/details on ELMs	Seats (Total: 19) ONLINE
9027	Joshua Buursma Class time/details on ELMs	Seats (Total: 19) ONLINE
ESG1	David Miles Class time/details on ELMs *Restricted to students at Shady Grove.*	Seats (Total: 15) ONLINE
ESM1	David Miles Class time/details on ELMs *Restricted to Electrical and Mechanical Engineering students at Souther Maryland.*	Seats (Total: 4) ONLINE

ENGL393H **Technical Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Restricted to students in the Honors College or departmental Honors programs.

Click here for more course information.

1202	Ruth Phillips TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 3252

6101	Ruth Phillips TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 3252

ENGL393Q **Technical Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

3001	Alexandra Calloway F 9:00am - 11:40am *The writing of technical papers and reports with additional service learning hours required to be completed as part of the course.*	Seats (Total: 19) TWS 3132

ENGL393X **Technical Writing**

(Perm req)

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Limited to students for whom English is a second language and who have a score below any of the following: SAT Verbal 400, TOEFL 575, CELT 250. Students who have received an "A" in ENGL 101 or its equivalent cannot register for ENGL 393X.

Click here for more course information.

1501	Sonney Wolfe TuTh 3:30pm - 4:45pm	Seats (Total: 15) KEY 0124

ENGL394 **Business Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Intensive practice in the forms of written communication common in the business world: letters, memos, short reports, and proposals. Focus on the principles of rhetoric and effective style.

Click here for more course information.

0201	John Tobin MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1105
0302	John Tobin MWF 11:00am - 11:50am	Seats (Total: 19) TWS 1320

0401	Jay Wilcox MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 3136
0501	Jay Wilcox MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 3252
0601	Anna Szczepaniec-Bialas MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 0232
0701	Anna Szczepaniec-Bialas MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0230
0801	Anna Szczepaniec-Bialas MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 1321
1101	Blake Wilder TuTh 9:30am - 10:45am	Seats (Total: 19) EDU 2119
1201	Aubrey Zinn TuTh 11:00am - 12:15pm	Seats (Total: 19) ASY 3219
1202	Blake Wilder TuTh 11:00am - 12:15pm	Seats (Total: 19) ASY 3215
1301	Adam Lloyd TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 1321
1303	David Todd TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0232
1401	Thomas Lowderbaugh TuTh 2:00pm - 3:15pm	Seats (Total: 19) ASY 3217
1501	Kara Pleasants TuTh 3:30pm - 4:45pm	Seats (Total: 19) ASY 3219
1505	Michael Israel TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 1105
1601	Sara Faradji M 6:30pm - 9:10pm	Seats (Total: 19) TWS 1321

1701	Jonathan Rick Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0214
1902	Anjula Batra Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 1105
9001	Robert Harris Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Robert Harris Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Robert Harris Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9007	Erica Cochran Class time/details on ELMs	Seats (Total: 19) ONLINE
9008	Holly Smith Class time/details on ELMs	Seats (Total: 19) ONLINE
9009	Nicole Cuffy Class time/details on ELMs	Seats (Total: 19) ONLINE
9010	Dennis Winston Class time/details on ELMs	Seats (Total: 19) ONLINE
9011	Radford Skudrna Class time/details on ELMs	Seats (Total: 19) ONLINE
9012	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE

9013	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9014	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9015	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9016	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9017	Erica Cochran Class time/details on ELMs	Seats (Total: 19) ONLINE
9018	Erica Cochran Class time/details on ELMs	Seats (Total: 19) ONLINE
9019	Erica Cochran Class time/details on ELMs	Seats (Total: 19) ONLINE
9020	Sara Faradji Class time/details on ELMs	Seats (Total: 19) ONLINE
9021	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
9022	Sajeela Yaqub Class time/details on ELMs	Seats (Total: 19) ONLINE
9023	Sajeela Yaqub Class time/details on ELMs	Seats (Total: 19) ONLINE
9024	Nicole Cuffy Class time/details on ELMs	Seats (Total: 19) ONLINE
9025	Nicole Cuffy Class time/details on ELMs	Seats (Total: 19) ONLINE
9026	Kara Pleasants Class time/details on ELMs	Seats (Total: 19) ONLINE

9027	Kara Pleasants Class time/details on ELMs	Seats (Total: 19) ONLINE
ESG2	Holly Smith Class time/details on ELMs *Restricted to students at Shady Grove.*	Seats (Total: 19) ONLINE
ESG3	Holly Smith Class time/details on ELMs *Restricted to students at Shady Grove.*	Seats (Total: 19) ONLINE
ESG4	Joseph Wappel TuTh 12:30pm - 1:45pm *Restricted to students at Shady Grove.*	Seats (Total: 19) BLD4 1119
ESG5	Joseph Wappel TuTh 11:00am - 12:15pm *Restricted to students at Shady Grove.*	Seats (Total: 19) BLD4 1119

ENGL395 **Writing for Health Professions**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focus on accommodating health-related technical material and empirical studies to lay audiences, and helping writers to achieve stylistic flexibility and correctness.

Click here for more course information.

0101	James Goodwin MWF 9:00am - 9:50am	Seats (Total: 19) TWS 1313
0201	James Goodwin MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0232
0301	Justin Lohr MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0230
0401	Justin Lohr MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0230

0501	Justin Lohr MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0224
0601	Joseph Wappel MW 2:00pm - 3:15pm	Seats (Total: 19) ASY 3219
0801	Elizabeth Marshall MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 1105
0901	Elizabeth Marshall MW 6:30pm - 7:45pm	Seats (Total: 19) TWS 1313
1001	Rachel Cote TuTh 8:00am - 9:15am	Seats (Total: 19) JMZ 0205
1101	Rachel Cote TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 0205
1201	Elizabeth Chang TuTh 11:00am - 12:15pm	Seats (Total: 19) JMZ 2207
1301	Zoe Alsop TuTh 12:30pm - 1:45pm	Seats (Total: 19) ASY 3221
1402	Kisa Lape TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 3132
1501	Kevin Wisniewski TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0230
1502	Kisa Lape TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 1321
1506	Kisa Lape TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 1321
1507	Kevin Wisniewski TuTh 6:30pm - 7:45pm	Seats (Total: 19) TWS 3136
1701	Michelle Moncrieffe Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 3250

9001	Kisa Lape Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Kisa Lape Class time/details on ELMs	Seats (Total: 19) ONLINE
ESG1	David Miles Class time/details on ELMs *Restricted to students at Shady Grove.*	Seats (Total: 19) ONLINE

ENGL398A **Writing for the Arts**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines the situations and genres in which working professionals (practitioners, advocates, administrators, and educators) write about art, culture, and artists. The course covers the complex process that writers need to learn, including how to accommodate information to specific audiences, how to use stylistic and visual devices to make information more accessible, and how to edit their own work as well as that of their peers. Assignments parallel the writing demands that students will face in the workplace, including analyzing and composing artist statements, an arts manifesto, art education guides, press releases about artists and their work, critical reviews of exhibits and performances, and proposals to funding agencies and foundations.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement. Not open to students who have completed ENGL391A. Credit will be granted for only one of the following: ENGL398A or ENGL391A. Formerly ENGL391A. An advanced composition course which emphasizes writing about the arts.

Click here for more course information.

1001	Caroline Wilkins TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1106
1101	Caroline Wilkins TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0230
1601	Emily Flamm M 6:30pm - 9:10pm	Seats (Total: 19) TWS 3132
1701	Mark Fitzgerald Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0224

1801	Emily Flamm W 6:30pm - 9:10pm	Seats (Total: 19) TWS 3132

ENGL398B **Writing for Social Entrepreneurship**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Designed for students who want to develop the skills needed to start a successful social venture--a start-up business with a social mission or a new nonprofit program. The course centers on a major writing project such as a business plan, a website design plan, a fundraising proposal, or a concept paper for a new nonprofit organization. Students produce other communication projects that social entrepreneurs use to develop their businesses and nonprofits, such as presentations or pitches to prospective investors/donors, marketing materials, and a job announcement. Students will learn from local social entrepreneurs who share their experiences of using writing to succeed in the field.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

0601	Eric Thiel MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 3252
0701	Eric Thiel MW 3:30pm - 4:45pm	Seats (Total: 19) ASY 3219
0801	Eric Thiel MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 1313
1601	Mrim Boutla M 6:30pm - 9:10pm	Seats (Total: 19) ASY 3219
1701	Mrim Boutla Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 1313
1901	Roxanne Clements Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 1313

ENGL398C **Writing Case Studies and Investigative Reports**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Designed for students interested in becoming police investigators, educators, case workers, insurance adjusters, nurses, or program evaluators, or in entering branches of the social sciences that investigate cases and value reports based on accurate descriptions and compelling narratives. Such reports must be factual and yet useful to decision makers, unbiased and yet focused. Students study genres and language skills from careful summarizing to convincing storytelling.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement. An advanced composition course which emphasizes writing cases and investigative reports.

Click here for more course information.

0701	Kevin Wisniewski MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 1105
0801	Kevin Wisniewski MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0230
1101	Kathleen Orr TuTh 9:30am - 10:45am	Seats (Total: 19) ASY 3217
1301	Kathleen Orr TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0214
1507	Alexandra Omogbadegun MW 6:30pm - 7:45pm	Seats (Total: 19) TWS 1320

ENGL398E **Writing About Economics**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines the characteristic genres of writing in modern economics, including theoretical and empirically based journal articles, reports for government and commercial clients, and economic information presented to a variety of non-professional audiences, such as citizen-oriented and public policy organizations. Students learn how to analyze these documents rhetorically and how to communicate economic information using the content, arrangement, style, and visual graphics best suited to the purposes and standards of particular audiences. Core assignments include a genre-based journal and document analysis, presentations on economics-related topics for both economists and non-professional audiences, and a major research-based writing project for an audience outside of the classroom.

0801	Joseph Wappel MW 5:00pm - 6:15pm	Seats (Total: 19) ASY 3219

ENGL398L **Scholarly Writing in the Humanities**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines scholarship in the humanities as a genre of professional writing and investigates the norms and procedures of advanced academic writing. Assignments parallel the writing demands that students will face in the academic workplace, including a graduate school application essay, a genre review, an annotated bibliography, a journal article, and an oral presentation of article subject matter.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement. An advanced composition class focusing on the norms and procedures of advanced academic writing.

Click here for more course information.

0301	Mark Forrester MWF 11:00am - 11:50am	Seats (Total: 19) TWS 1105

ENGL398N **Writing for Non-Profit Organizations**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines professional writing and communication work in the non-profit sector. Students will analyze the audiences and document genres that they may encounter in real-world non-profit work and will learn how to compose many of these documents, from press releases and other public relations material to position papers, reports, and grant proposals. Students may also have the opportunity to add a service-learning component to the course by working with and for an area non-profit.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement. Not open to students who have completed ENGL394N. Credit will be granted for only one of the following ENGL398N or ENGL394N. Formerly ENGL394N. A busniness writing class focusinog on writing about nonprofits.

Click here for more course information.

0301	Michael Schmidt MWF 11:00am - 11:50am	Seats (Total: 19) TWS 3252
0401	Michael Schmidt MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0232
0601	Alexandra Omogbadegun MW 2:00pm - 3:15pm	Seats (Total: 19) JMZ 3205
0801	Gerard Holmes MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0223

1001	Rebecca Holden TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0223
1101	David Todd TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0232
1201	David Todd TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0232
1301	Rebecca Holden TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0223
1401	Rebecca Holden TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0223

ENGL398R **Writing Non-Fictional Narratives**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Approaches nonfiction narrative-a kind of writing influenced by fiction, magazine journalism, memoir, and personal essay--as a form of professional writing used in publishing and a range of careers involving proposal writing, work documentation, lobbying, social marketing, and political commentary, among others. Students learn to use many of the same tools as fiction writers, such as dialogue, vivid description, developing characters, nonlinear structure, and shifts in tense, time, and points of view. They also learn how to edit their own work as well as that of their peers, doing multiple revisions of the major assignments for a final portfolio. Major assignments include essays targeted to specific publications, query letters, audience analysis, and a publisher analysis.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

1001	Daniel Sidman TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1321
1101	Pamela Gerhardt Th 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 19) TWS 0224 ONLINE
1102	Lyra Hilliard TuTh 9:30am - 10:45am	Seats (Total: 19) KNI 1206

1201	Pamela Gerhardt Th 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 19) TWS 0224 ONLINE
1301	Pamela Gerhardt Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 19) TWS 0224 ONLINE
1401	Danuta Hinc TuTh 2:00pm - 3:15pm	Seats (Total: 19) ASY 3219
1501	Danuta Hinc TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0224

ENGL398V **Writing About the Environment**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Designed for those aspiring to work in a variety of fields that influence and are influenced by environmental science, including public policy, advocacy, science, and industry. Students learn to apply principles of technical writing to a range of scenarios and issues particular to the intersection of scientific knowledge and environmental policy. Writing audiences range from the public to decision-makers. The course emphasizes writing both within and across disciplines to enlist research for practical contexts.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement. Not open to students who have completed ENGL393E. Credit will be granted for only one of the following ENGL398V or ENGL393E. Formerly ENGL393E.

Click here for more course information.

1201	Heidi Scott TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 3203
1301	Jesse Brooks TuTh 12:30pm - 1:45pm	Seats (Total: 19) EDU 3233
1501	Jesse Brooks TuTh 3:30pm - 4:45pm	Seats (Total: 19) KEY 0119
1502	Anna Josephson TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 1105

1701	Jesse Brooks Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 1320
1702	Jesse Brooks Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 3250

ENGL402 **Chaucer**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Works read in Middle English. Readings may include Canterbury Tales, Troilus and Criseyde, dream visions, lyrics.

0101	Christopher Crane TuTh 11:00am - 12:15pm	Seats (Total: 20) TWS 1320

ENGL404 **Shakespeare: The Later Works**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Close study of selected plays from the second half of Shakespeare's career. Generic issues of later tragedies, later comedies, romances. Language, theme, dramatic technique, sources, and early modern English social-historical context.

0101	Scott Trudell TuTh 11:00am - 12:15pm	Seats (Total: 20) TWS 1321

ENGL409A **Study Abroad Special Topics IV; Solitude in Life and Letters in Enlightenment Britain**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409B **Study Abroad Special Topics IV; Shakespeare: The Play and the Book**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409C **Study Abroad Special Topics IV; Shakespeare's Italian Plays**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409D **Study Abroad Special Topics IV; Time, Narrative and Culture (Sem A)**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409E **Study Abroad Special Topics IV; The Revolution Controversy: Politics and Genre**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409F **Study Abroad Special Topics IV; Grand Tours: Nineteenth Century Adventure Stories for Young Readers and their Twentieth Century Afterlives**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409G **Study Abroad Special Topics IV; Thomas Hardy and the Victorian Modern**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409H **Study Abroad Special Topics IV; The Caribbean Novel**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409I **Study Abroad Special Topics IV; The New York Century: Urban Literary Culture 1900-1999**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409L **Study Abroad Special Topics IV; Literature of London**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409P **Study Abroad Special Topics IV; Phonies, Fakes, Liars and Conmen: Readings in Fact and Fiction**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL414 **Milton**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Poetry and major prose in their social, political, and literary-historical contexts. Special attention to Paradise Lost. Other works may include Samson Agonistes and shorter poems.

Contact department for information to register for this course.

ENGL420 **English Romantic Literature**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

British poetry, drama, fiction, and criticism c.1790 to c.1830, a period of dramatic social change and revolution in literature, philosophy, the arts, industry, and politics. Authors include Austen, Wordsworth, Coleridge, Keats, Byron, Percy, and Mary Shelley.

0101	Gerard Holmes	Seats (Total: 15)
	TuTh 5:00pm - 6:15pm	TWS 1313

ENGL422A **English Victorian Literature**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

A survey of English literature of the Victorian period. Writers may include Arnold, Browning, Tennyson, Dickens, George Eliot, Carlyle, Ruskin, Newman, and Wilde.

Contact department for information to register for this course.

ENGL428V **Seminar in Language and Literature; Making Words**

(Perm req)

Topics will vary each semester. The course will provide a seminar experience in material or methodologies not otherwise available to the major.

Restriction: Junior standing. For ENGL majors only. Repeatable to 9 credits if content differs. Course intended primarily for students in English Honors Program. English majors with strong academic records may also apply. Permission from the Director of Honors required.

0101	Matthew Kirschenbaum TuTh 12:30pm - 1:45pm	Seats (Total: 15) TWS 3250

ENGL429 **Independent Research in English**

(Perm req)

An advanced independent research project for qualified students, supervised by an English faculty member, on a topic not ordinarily covered in available courses.

Prerequisite: ENGL301 and two English courses, excluding Fundamental Studies requirement.

Contact department for information to register for this course.

ENGL439D **Spotlight on Major Writers; Dickinson, Erotics, Poetics, Biopics: Some (Queer) Ways We Read Poetry**

An intensive study of a single writer, or a handful of writers, to understand the shifts in the writer's craft and cultural influence, both past and present.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Cross-listing with LGBT448Y and WGSS498Y. Credit only granted for ENGL439D, LGBT448Y, WGSS498Y, or WMST498Y.

0101	Hillary Roegelein TuTh 12:30pm - 1:45pm	Seats (Total: 15) ONLINE

ENGL439K **Spotlight on Major Writers; Two Madmen: William Cowper (d. 1800) & John Ruskin (d. 1900)**

An intensive study of a single writer, or a handful of writers, to understand the shifts in the writer's craft and cultural influence, both past and present.

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

0101	Michael Olmert Tu 3:30pm - 6:00pm	Seats (Total: 20) TWS 3132

ENGL439M **Spotlight on Major Writers; Major American Writers After 1865**

An intensive study of a single writer, or a handful of writers, to understand the shifts in the writer's craft and cultural influence, both past and present.

Contact department for information to register for this course.

ENGL444 **Feminist Critical Theory**

Prerequisite: WMST200, WGSS200, WMST250, WGSS250, or ENGL250. Cross-listed with: WGSS444. Credit only granted for: ENGL444, WMST444 or WGSS444. Formerly: WMST444.

Issues in contemporary feminist thought that have particular relevance to textual studies, such as theories of language, literature, culture, interpretation, and identity.

Contact department for information to register for this course.

ENGL457 **The Modern Novel**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Modernism in the novel of the twentieth century. Such writers as Joyce, Lawrence, Murdoch, James, Forster, Faulkner, Hemingway, Fitzgerald, Ellison, Welty, Nabokov and Malamud.

Contact department for information to register for this course.

ENGL458A **Literature by Women After 1800; Gender, Race and Empire in Women's Writing 1780-1900**

Selected writings by women after 1800.

Contact department for information to register for this course.

ENGL459C **Selected Topics in LGBTQ+ Literatures and Media; Life Writings in Different Media**

Advanced study of a topic pertinent to literary and cultural expressions of LGBTQ+ identities, positionalities, and analytics through an exploration of literature, art, and/or media.

Cross-listed with LGBT459D. Credit only granted for ENGL459C or LGBT459D.

0101	John Tobin	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	TWS 1313

ENGL463 **Narrative Analysis Methods in English Studies**

Prerequisite: Two English courses beyond Fundamental Studies; or permission of ARHU-English department.

Approaches to literary narrative analysis. Explores narrative theory as a research method for studying the fundamental categories of literary narrative--such as the narrator, character, plot, closure, and frames, as well as the nature of fictionality and the role of the reader--and for interpreting their deployment in individual literary works. We will use this method to examine particularly unusual and even radical fiction, so we can understand the meaning-making work accomplished by narrative form.

0101	Brian Richardson	Seats (Total: 20)
	MW 2:00pm - 3:15pm	TWS 1105

ENGL468A **Selected Topics in Film Studies; The Scene of Writing**

Advanced studies in various periods and genres of film.

Contact department for information to register for this course.

ENGL469M **The Craft of Literature: Creative Form and Theory; Navigating Epic, Sequential, and other Long-form Poetry**

(Perm req)

Examines various forms of poetry and/or fiction, emphasizing the practice of making literary art and the aesthetic and theoretical approaches that define it. Students will practice the elements of literary craft, producing and experimenting with a wide range of forms and conventions in poetry and/or fiction. They will also produce critical work that articulates and contextualizes theoretical approaches to the making of literary art.

Prerequisite: Two English courses in literature or creative writing and have completed a 200-level creative writing workshop in ENGL or permission of ARHU-English Department. Repeatable to 9 credits if content differs.

0101	Lara Payne	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	JMZ 1103

ENGL471 **African-American Literature: 1910-1945**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Emergence of modernism in African-American writing including debates over the definition of unique African-American aesthetics, with emphasis on conditions surrounding the production of African-American literatures.

0101	Blake Wilder	Seats (Total: 20)
	MW 3:30pm - 4:45pm	TWS 0205

ENGL475 **Postmodern Literature**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

The origins and ongoing development of postmodern literature. Aspects of the "postmodern condition," such as the collapse of identity, the erasure of cultural and aesthetic boundaries, and the dissolution of life into textuality. The novel and other genres and media.

Contact department for information to register for this course.

ENGL478J **Selected Topics in Literature before 1800; The Essay Form: The Art of Unfinished Thought**

Advanced study of key topics in literary works from earlier historical periods.

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

0101	Gerard Passannante	Seats (Total: 15)
	MW 3:30pm - 4:45pm	TWS 1321

ENGL478N **Selected Topics in Literature before 1800; Little Commonwealth: Domesticity and Dissent in Early Modern England**

Advanced study of key topics in literary works from earlier historical periods.

Prerequisite: Two English courses in literature; or permission of ARHU- English department.

0101	Kim Coles	Seats (Total: 15)
	MW 2:00pm - 3:15pm	TWS 1321

ENGL487 **Principles and Practices of Rhetoric**

A seminar examining foundational concepts and approaches in the theory and practice of rhetoric in civic, professional, academic, and interpersonal settings; focusing on key issues in persuasion, argumentation, and eloquence in historical and contemporary contexts.

0101	Sara Wilder	Seats (Total: 20)
	MW 2:00pm - 3:15pm	TWS 1320

ENGL491 **Digital Rhetoric**

Prerequisite: Students must have satisfied the Fundamental Studies Academic Writing requirement. Credit only granted for: ENGL489J, or ENGL491. Formerly: ENGL489J.

Examines the social significance of the ways digital texts are composed and circulated. Explores why it matters how the web is written and who does the writing, understanding the Internet as rhetorical from its content and communities to the code, protocols, and policies that control digital distribution. Includes active experimentation with digital tools so students can expand their theoretical understanding through critical making.

0101	Adam Lloyd	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TWS 1321

ENGL495 **Independent Study in Honors**

(Perm req)

Prerequisite: ENGL373 and ENGL370. Restriction: Must be in English Language and Literature program; and candidacy for honors in English.

Completion and presentation of the senior honors project.

Contact department for information to register for this course.

ENGL497 **English at Work**

Prerequisite: ENGL301; and an ENGL course at the 300-level or higher. Restriction: Must have earned a minimum of 60 credits.

Examines how English majors put their academic knowledge and skills to work in professional workplaces after graduation. Students learn strategies to research careers, and they shadow a person in a career of interest for a day. Students learn to compose different professional genres to write and speak about and for professional development and advancement, including inquiry letters, technical descriptions, professional portfolios, and elevator pitches. Students will critically examine the learning they have done in their undergraduate coursework and compose a vision for bringing that learning to life in their future work.

Restriction: Must be in English Language and Literature program; or must be in Secondary Educ: English Language Arts program.

0101	Blake Wilder TuTh 2:00pm - 3:15pm	Seats (Total: 20) TWS 1313

ENGL498 **Advanced Fiction Workshop**

(Perm req)

An advanced class in the making of fiction. Intensive discussion of students' own fiction. Readings include both fiction and essays about fiction by practicing writers. Writing short critical papers, responding to works of fiction, and to colleagues' fiction, in-class writing exercises, intensive reading, and thinking about literature, in equal parts, and attendance at readings.

Prerequisite: ENGL352 or ENGL396; or permission of department.

0101	Rion Scott W 3:30pm - 6:00pm	Seats (Total: 15) TWS 3134
0201	Emily Mitchell Th 3:30pm - 6:00pm	Seats (Total: 15) TWS 3136
0301	Sabrina Islam Tu 3:30pm - 6:00pm	Seats (Total: 15) TWS 1320

ENGL499 **Advanced Poetry Workshop**

(Perm req)

An advanced class in the making of poetry. Intensive discussion of students' own poems. Readings include both poetry and essays about poetry by practicing poets. Writing short critical prose pieces, responding critically to colleagues' poems, in-class and outside writing exercises, and attendance at poetry readings.

Prerequisite: ENGL397 or ENGL353; or permission of department.

0101	Lindsay Bernal Th 3:30pm - 6:00pm	Seats (Total: 15) TWS 3132

ENGL601 **Introduction to Graduate Studies**

An introduction to different elements of graduate work and an exploration of what it means to get a doctoral degree in English. Considers different career trajectories, in and outside of academia, as well as the future of higher education.

For majors only.

0101	Christina Walter Tu 3:30pm - 6:00pm	Seats (Total: 14) TWS 3136

ENGL679 **Professional and Career Mentoring for Master's Students**

(Perm req)

Augments advising currently provided by the English Department Graduate Studies Office. Individual professional and career mentoring for MA and MFA students from a faculty member.

Contact department for information to register for this course.

ENGL688 **Poetry Workshop**

(Perm req)

Poetry workshop.

0201	Lillian-Yvonne Bertram Tu 3:30pm - 6:00pm	Seats (Total: 12) TWS 3252

ENGL689 **Fiction Workshop**

(Perm req)

Fiction workshop.

0101	Maud Casey Tu 3:30pm - 6:00pm	Seats (Total: 12) TWS 3250

ENGL699 **Independent Study**

(Perm req)

Contact department for information to register for this course.

ENGL708A **Seminar in Rhetoric; Feminist Memory Studies**

(Perm req)

Topics in rhetoric: history of rhetorical theory, modern rhetorical theory, rhetorical interpretation, composition theory, rhetoric of social groups.

0101	Jessica Enoch Th 3:30pm - 6:00pm	Seats (Total: 11) TWS 3134

ENGL729C **Seminar in Eighteenth-Century Literature; Empire and Emotion in the Long Eighteenth Century**

(Perm req)

0101	Laura Rosenthal M 3:30pm - 6:00pm	Seats (Total: 11) TWS 3136

ENGL749N **Studies in Twentieth-Century Literature; Black Performance: From Slavery to Hip Hop**

(Perm req)

0101	Julius Fleming W 3:30pm - 6:00pm	Seats (Total: 11) TWS 3136

ENGL758B **Literary Criticism and Theory; Queer, Trans, and Feminist Theory**

(Perm req)

0101	David Simon Tu 6:30pm - 9:00pm	Seats (Total: 11) TWS 3134

ENGL758C **Literary Criticism and Theory; Public Humanities**

(Perm req)

0101	Amanda Bailey Th 3:30pm - 6:00pm	Seats (Total: 11) TWS 3252

ENGL798B **Critical Theory Colloquium**

(Perm req)

An intensive advanced exploration of current problems and issues in critical theory.

0101	John Drabinski Contact instructor or department for details.	Seats (Total: 20)

ENGL799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

ENGL809 **Academic Publishing Workshop**

(Perm req)

A workshop for the preparation of articles of other critical writing for publication in academic journals or other professional venues.

0101	Jason Rudy Contact instructor or department for details.	Seats (Total: 12)

ENGL878 **Pedagogical Mentoring for Doctoral Students**

(Perm req)

Pedagogical mentoring by roster faculty members for graduate students teaching 200-level literature courses.

Contact department for information to register for this course.

ENGL879 **Professional Mentoring for Doctoral Students**

(Perm req)

Augments advising currently provided by the English Department Graduate Studies Office. Individual professional and career mentoring for PhD students from a faculty member.

Contact department for information to register for this course.

ENGL888 **Practicum in English Studies**

0112	Sara Wilder Contact instructor or department for details.	Seats (Total: 20)	

ENGL898 **Pre-Candidacy Research**

(Perm req)

Pedagogical mentoring by roster faculty members for graduate students teaching 200-level literature courses.

Contact department for information to register for this course.

ENGL899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENMA Engineering, Materials Fall 2023

ENMA150 **Materials of Civilization**

The discovery of new materials has shaped history and built civilizations. The utilization, properties and production techniques of materials from the Bronze Age up through modern times and into the future will be traced. These materials are explained by considering their atomic structure, the binding forces between atoms and their arrangement, and how controlling the structure controls the materials properties.

0101	Robert Briber TuTh 3:30pm - 4:45pm W 2:00pm - 2:50pm	Seats (Total: 23) CHE 2118 MTH 0405	 Discussion
0102	Robert Briber TuTh 3:30pm - 4:45pm Th 11:00am - 11:50am	Seats (Total: 22) CHE 2118 MTH B0425	 Discussion

ENMA180 **Materials Science and Engineering: The Field and the Future**

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

Overview of the profession and the components of the Materials Science and Engineering program. Students will become familiar with the departmental faculty, areas of specialization within MSE, professional society student chapter, research opportunities and other resources available to students.

0101	N Parker	Seats (Total: 20)
	W 3:00pm - 3:50pm	CHE 2145

ENMA300 **Introduction to Materials Engineering**

(Perm req)

Prerequisite: ENES100; and permission of ENGR-Materials Science & Engineering department. Corequisite: MATH241. Recommended: PHYS261 and PHYS260. Restriction: Permission of ENGR-Mechanical Engineering department. Cross-listed with ENME382. Credit only granted for: ENMA300 or ENME382.

Structure of materials, chemical composition, phase transformations, corrosion and mechanical properties of metals, ceramics, polymers and related materials. Materials selection in engineering applications.

0101	Luz Martinez-Miranda	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	ATL 2324
0201	Carlos Rios Ocampo	Seats (Total: 40)
	TuTh 9:30am - 10:45am	EGR 1104
	For students majoring in Materials Science and Engineering.	
0301	Francis McCluskey	Seats (Total: 30)
	MWF 10:00am - 10:50am	TMH 0301

ENMA312 **Experimental Methods in Materials Science**

Prerequisite: ENMA300. Corequisite: ENMA460. Restriction: Junior standing or higher.

Introduction to experimental methods in materials characterization; synthesis of colloidal nanoparticles; X-ray diffraction and light scattering; optical microscopy; thermal conductivity and expansion; electrical measurements; heat capacity; computational materials design.

0102	Audaldo Ponce	Seats (Total: 10)	
	Tu 2:00pm - 3:15pm	KEB 1135	
	W 9:00am - 11:50am	KEB 1135	Lab

ENMA362 **Mechanical Properties**

(Perm req)

Prerequisite: ENMA300. Restriction: Junior standing or higher; and permission of ENGR-Materials Science & Engineering department.

Overview of Mechanical Behavior, Elastic Behavior, Dislocations, Plastic Deformation, Strengthening of Crystalline Materials, Composite Materials, High Temperature Deformation of Crystalline Materials, Permanent Deformation of Noncrystalline Materials, Tensile Fracture at Low Temperatures, Engineering Aspects of Fracture, High Temperature Fracture, Fatigue, and Experimental determination of Mechanical Properties including Hardness of Metals and Strength of Metals, Polymers, Ceramics and Composites.

For ENMA majors only.

0102	Gianna Valentino MWF 12:00pm - 12:50pm Th 9:00am - 11:00am	Seats (Total: 22) JMP 1202 KEB 1135	 Lab

ENMA401 **Continuum Modeling of Materials**

(Perm req)

Prerequisite: ENMA362, PHYS270, PHYS271, and MATH246; or equivalent; and ENMA165 or MATH206. Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA401 or ENMA489C. Formerly: ENMA489C.

Introduces continuum modeling techniques in materials science and engineering. This course covers and emphasizes the applications of continuum modeling techniques using COMSOL software package in simulating a range of materials phenomena and properties. Specific topics of continuum modeling include: The construction and analyses of continuum models using COMSOL software package; Structural mechanics; Heat transfer; Electrical current; Chemical species transport; Fluid flow; Multi-physics models coupling above phenomena.

0101	Yifei Mo TuTh 9:30am - 10:45am	Seats (Total: 25) EGR 0312	

ENMA416 **Lithium Battery Fundamentals, Safety, and Assembly**

(Perm req)

Restriction: Permission of the department.

Focus on the real-world considerations that allow for safe battery implementation into actual products while providing the opportunity to assemble functional battery cells. Fundamental electrochemistry, kinetics, thermodynamics, and material properties and their impact on cell and battery pack design, performance, and safety for lithium chemistry batteries will be explored. The lab will include hands-on experimental and design projects centered on cell design, performance, and the causes and effects of thermal runaway in lithium batteries. Site visits to battery research centers and manufacturers are planned.

The lab component will be held on specific days at ARL laboratory. The lab time will average two hours a week to accommodate ARL laboratory schedule.

0101	Daphne Fuentevilla, Ashley Ruth, Gibson Scisco, Julie Simmons TuTh 5:00pm - 5:50pm Contact instructor or department for details.	Seats (Total: 10) CHE 2145

ENMA422 **Radiation Effects of Materials**

(Perm req)

Prerequisite: ENMA300; and permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA422 or ENMA489E. Formerly: ENMA489E.

Ionizing radiation, radiation dosimetry and sensors, radiation processing, radiation effects on: polymers, metals, semiconductors, liquids, and gases. Radiation in advanced manufacturing, radiation-physical technology.

0101	Mohamad Al-Sheikhly TuTh 3:30pm - 4:45pm	Seats (Total: 30) EGR 2116

ENMA436 **Introduction to Quantum Materials and Devices**

Prerequisite: ENMA460 and ENMA461 . Restriction: Permission of ENGR-Materials Science & Engineering department. Jointly offered with: ENMA636. Credit only granted for: ENMA436 or ENMA636.

Quantum materials and devices are an emerging field in materials engineering and physics which offer new approaches to electronics and photonics. This course serves as an introduction to quantum materials and their applications in quantum technologies. It will teach concepts needed to understand the quantum mechanical properties of materials and connect their fundamental properties to quantum device applications. Topics will include low-dimensional materials, strongly correlated electron systems, topology in solids, and light-matter interactions

0101	You Zhou TuTh 2:00pm - 3:15pm	Seats (Total: 20) PLS 1115

ENMA437 **Machine Learning for Materials Science**

(Perm req)

Prerequisite: MATH206, ENMA300, and MATH461. Restriction: Permission of ENGR-Materials Science & Engineering department. Jointly offered with: ENMA637. Credit only granted for: ENMA489L, ENMA437 or ENMA637. Formerly: ENMA489L.

Familiarizes students with basic as well as state of the art knowledge of machine learning and its applications to materials science and engineering. Covers the range of machine learning topics with applications including feature identification and extraction, determining predictive descriptors, uncertainty analysis, and identifying the most informative experiment to perform next. One focus of the class is to build the skills necessary for developing an autonomous materials research system, where machine learning controls experiment design, execution, and analysis in a closed-loop.

0101	Ichiro Takeuchi, Aaron Kusne	Seats (Total: 10)
	M 10:00am - 12:50pm Class time/details on ELMs	JMP 2116 ONLINE

ENMA441 **Characterization of Materials**

(Perm req)

Prerequisite: ENMA300, ENMA165 or MATH206. Restriction: Permission of ENGR-Materials Science & Engineering department; and senior standing. Credit only granted for: ENMA489T or ENMA441. Formerly: ENMA489T.

Techniques to characterize the properties of materials whose characteristic dimensions range from nanometers to macroscopic. These include conventional crystalline and noncrystalline materials, with a special attention to materials of current technological interest. The course will include recent results from the scientific literature.

0101	John Cumings	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	PHY 1402

ENMA460 **Introduction to Solid State Physics**

Prerequisite: PHYS271, PHYS270, and MATH241. Restriction: Junior standing or higher; and must be in the Engineering: Materials Science program or Physics program. Cross-listed with: PHYS431. Credit only granted for: ENMA460 or PHYS431. Additional information: Materials Engineering students take ENMA460 and Physics students take PHYS431.

Classes of materials; introduction to basic ideal and real materials' behavior including mechanical, electrical, thermal, magnetic and optical responses of materials; importance of microstructure in behavior. One application of each property will be discussed in detail.

0101	Johnpierre Paglione	Seats (Total: 45)
	MW 5:00pm - 6:15pm	PHY 1402

ENMA464 **Environmental Effects on Engineering Materials**

Prerequisite: ENMA300. Or permission of ENGR-Materials Science & Engineering department; and permission of instructor.

Introduction to the phenomena associated with the resistance of materials to damage under severe environmental conditions. Oxidation, corrosion, stress corrosion, corrosion fatigue and radiation damage are examined from the point of view of mechanism and influence on the properties of materials. Methods of corrosion protection and criteria for selection of materials for use in radiation environments.

0101	Sreeramamurthy Ankem	Seats (Total: 25)
	MWF 2:00pm - 2:50pm	EGR 2154

ENMA471 **Kinetics, Diffusion and Phase Transformations**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in ENMA461. Restriction: Junior standing or higher; or permission of ENGR-Materials Science & Engineering department.

Fundamentals of diffusion, the kinetics of reactions including nucleation and growth and phase transformations in materials.

0101	Raymond Phaneuf	Seats (Total: 49)
	TuTh 11:00am - 12:15pm	PHY 4221

ENMA486 **Seminar in Materials Science and Engineering**

Restriction: Must be in Engineering: Materials Science program.

Current research in materials science and engineering and related fields. The lectures are presented by scientists and engineers from academia, national laboratory, US government, etc., in the format of seminars.

0101	Ji-Cheng Zhao	Seats (Total: 4)
	W 3:30pm - 5:00pm	CHE 2108

ENMA487 **Capstone Preparation**

(Perm req)

Restriction: Must be in Engineering: Materials Science program; and senior standing; and permission of ENGR-Materials Science & Engineering department.

In preparation for the senior level design course, students will do background research and develop white papers from which teams will form around short listed design projects. The projects should focus on a society, industry, military or technological based problem in Materials Science and Engineering leading to a design and strategy to address the problem in the following course, ENMA 490. The course will include written and oral presentations of the white papers and team proposals.

0101	Raymond Phaneuf	Seats (Total: 40)
	W 1:00pm - 1:50pm	EGR 0135

ENMA489M **Selected Topics in Engineering Materials; Advanced Manufacturing Laboratory (AML)**

(Perm req)

Selected topics of current importance in materials science and engineering.

Credit only granted for ENEE419M, ENMA489M, or BIOE489J. An interdisciplinary course designed to provide students with an overview of key processes, technology, and manufacturing techniques involved in fabricating advanced devices and systems. Students will be exposed to state-of-the-art fabrication technologies including soft lithography, 3D printing, hybrid manufacturing, material functionalization, and systems integration. In addition to developing a theoretical understanding in the classroom, students will gain hands-on fabrication and characterization experience of systems that can interface with complex environments.

0101	Kevin Daniels	Seats (Total: 4)	
	MW 9:00am - 9:50am	CHE 2116	
	F 9:00am - 11:50am	KEB 1135	Lab

ENMA499 **Senior Laboratory Project**

Students work with a faculty member on an individual laboratory project in one or more of the areas of engineering materials. Students will design and carry out experiments, interpret data and prepare a comprehensive laboratory report.

0101	Gary Rubloff, Mohamad Al-Sheikhly	Seats (Total: 6)
	Contact instructor or department for details.	

ENMA601 **Continuum Modeling of Materials**

Restriction: Permission of ENGR-Materials Science & Engineering department. Jointly offered with: ENMA401. Credit only granted for: ENMA401, ENMA601 or ENMA698C. Formerly: ENMA698C.

An introductory course of continuum modeling in materials science and engineering. This course covers and emphasizes the applications of continuum modeling techniques using COMSOL software package in simulating a range of materials phenomena and properties.

0101	Yifei Mo	Seats (Total: 5)
	TuTh 9:30am - 10:45am	EGR 0312

ENMA616 **Lithium Battery Fundamentals, Safety, and Assembly**

Prerequisite: . Restriction: Permission of the department. Jointly offered with: ENMA416. Credit only granted for: ENMA416 or ENMA616.

Focus on the real-world considerations that allow for safe battery implementation into actual products while providing the opportunity to assemble functional battery cells. Fundamental electrochemistry, kinetics, thermodynamics, and material properties and their impact on cell and battery pack design, performance, and safety for lithium chemistry batteries will be explored. The lab will include hands-on experimental and design projects centered on cell design, performance, and the causes and effects of thermal runaway in lithium batteries. Site visits to battery research centers and manufacturers are planned.

0101	Julie Simmons, Ashley Ruth, Gibson Scisco, Daphne Fuentevilla TuTh 5:00pm - 5:50pm Contact instructor or department for details.	Seats (Total: 5) CHE 2145

ENMA636 **Introduction to Quantum Materials and Devices**

Prerequisite: ENMA650 and ENMA660 . Restriction: Permission of ENGR-Materials Science & Engineering department. Jointly offered with: ENMA436. Credit only granted for: ENMA436 or ENMA636.

Quantum materials and devices are an emerging field in materials engineering and physics which offer new approaches to electronics and photonics. This course serves as an introduction to quantum materials and their applications in quantum technologies. It will teach concepts needed to understand the quantum mechanical properties of materials and connect their fundamental properties to quantum device applications. Topics will include low-dimensional materials, strongly correlated electron systems, topology in solids, and light-matter interactions.

0101	You Zhou TuTh 2:00pm - 3:15pm	Seats (Total: 5) PLS 1115

ENMA637 **Machine Learning for Materials Science**

(Perm req)

Prerequisite: MATH461. Recommended: Python knowledge. Restriction: Permission of ENGR-Materials Science & Engineering department. Jointly offered with: ENMA437. Credit only granted for: ENMA437, ENMA489L, or ENMA637.

Familiarizes students with basic as well as state of the art knowledge of machine learning and its applications to materials science and engineering. Covers the range of machine learning topics with applications including feature identification and extraction, determining predictive descriptors, uncertainty analysis, and identifying the most informative experiment to perform next. One focus of the class is to build the skills necessary for developing an autonomous materials research system, where machine learning controls experiment design, execution, and analysis in a closed-loop.

0101	Aaron Kusne, Ichiro Takeuchi M 10:00am - 12:50pm Class time/details on ELMs	Seats (Total: 10) JMP 2116 ONLINE

ENMA641 **Nanotechnology Characterization**

(Perm req)

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA698T or ENMA641. Formerly: ENMA698T.

Techniques to characterize the properties of materials whose characteristic dimensions are a few to a few hundred nanometers, including conventional nanocrystalline materials, but concentrating on novel nanomaterials: carbon nanotubes, quantum dots, quantum wires, and quantum wells are covered. The emphasis is on recent results from the scientific literature concerning those properties that make nanostructures interesting: quantum effects, novel transport phenomena, enhanced mechanical properties associated with localization and with small crystallite size.

0101	John Cumings TuTh 12:30pm - 1:45pm	Seats (Total: 3) PHY 1402

ENMA650 **Nanometer Structure of Materials**

(Perm req)

Prerequisite: ENMA460; or students who have taken courses with comparable content may contact the department. And permission of ENGR-Materials Science & Engineering department.

The basic concepts required for understanding nanostructured materials and their behavior will be covered. Topics covered include the structural aspects of crystalline and amorphous solids and relationships to bonding types, point and space groups. Summary of diffraction theory and practice. The reciprocal lattice. Relationships of the microscopically measured properties to crystal symmetry. Structural aspects of defects in crystalline solids.

0101	Gottlieb Oehrlein MW 5:00pm - 6:15pm	Seats (Total: 26) EGR 3106

ENMA660 **Thermodynamics in Materials Science**

(Perm req)

Corequisite: ENMA650. Restriction: Permission of ENGR-Materials Science & Engineering department.

Thermodynamics of engineering solids. Thermal, diffusional and mechanical interactions in macroscopic systems. Systems in thermal contact, systems in thermal and diffusive contact, systems in thermal and mechanical contact.

0101	Oded Rabin MW 1:00pm - 2:15pm	Seats (Total: 25) ANS 0402

ENMA664 **Advanced Environmental Effects on Engineering Materials**

Credit only granted for: ENMA664 or ENMA698K. Formerly: ENMA698K.

Introduction to the phenomena associated with the resistance of materials to damage under severe environmental conditions. Oxidation, corrosion, stress corrosion, corrosion fatigue and radiation damage are examined from the point of view of mechanism and influence on the properties of materials. Methods of corrosion protection and criteria for selection of materials for use in radiation related environments.

0101	Sreeramamurthy Ankem	Seats (Total: 5)	
	MWF 2:00pm - 2:50pm	EGR 2154	

ENMA680 **Determination of Structure, Chemical Composition and Defects in Materials**

(Perm req)

Prerequisite: ENMA650. Restriction: Permission of ENGR-Materials Science & Engineering department.

Basic principles of electron microscopy theory, electron diffraction, and imaging theory. The electron beam sample interaction that gives rise to different signals is related to the structural and compositional information that is obtained from a sample using a TEM. The most common TEM techniques for structural characterization of a sample, namely, electron diffraction, bright/dark field imaging, and high resolution lattice imaging are discussed. Compositional information obtained from x-ray fluorescence and electron energy loss as well as the resolution of these techniques is also covered. A description of techniques used to study magnetic materials is also presented.

0101	Lourdes Salamanca-Riba	Seats (Total: 21)	
	TuTh 3:30pm - 4:45pm	PHY 4222	

ENMA683 **Structural Determination Laboratory**

(Perm req)

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA698L or ENMA683. Formerly: ENMA698L.

The operation of an electron microscope is covered. TEM techniques that are used to characterize the structure, defects and composition of a sample are presented and used to study a variety of materials. These techniques are: electron diffraction patterns, bright/dark field imaging, high resolution lattic imaging and energy dispersive x-ray spectroscopy. Also covers different sample preparation techniques for TEM. The goal is that the students become independent users of the TEM.

0101	Lourdes Salamanca-Riba	Seats (Total: 5)	
	Th 9:30am - 12:30pm	KEB 1237	Lab
0201	Lourdes Salamanca-Riba	Seats (Total: 5)	
	F 2:30pm - 5:30pm	KEB 1237	Lab

ENMA688 **Seminar in Materials Science and Engineering**

Current research in materials science and engineering and related fields.

0101	Ji-Cheng Zhao	Seats (Total: 24)
	W 3:30pm - 5:00pm	CHE 2108

ENMA698 **Special Problems in Materials Science and Engineering**

(Perm req)

Individual, supervised study in materials science and engineering.

Contact department for information to register for this course.

ENMA797 **Independent Study**

This course is designed to provide students with a directed independent study course in order to prepare the scholarly paper required for the master's degree without thesis degree option.

0101	Ichiro Takeuchi	Seats (Total: 5)
	Contact instructor or department for details.	

ENMA799 **Master's Thesis Research**
Contact department for information to register for this course.

ENMA898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENMA899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENME Engineering, Mechanical Fall 2023

ENME202 **Computing Fundamentals for Engineers**

(Perm req)

Corequisite: Must be concurrently enrolled in MATH141. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENAE202 or ENME202.

Introduction to computational tools for the solution of engineering problems. C++ & MATLAB programming including branching and loops, functions, file handling, arrays, and data structures. Students will be introduced to object-oriented programming, basic computing, algorithms, and principles of software engineering.

0101	Avik Dutt	Seats (Total: 42)	
	MW 11:00am - 11:50am	HJP 0226	
	Tu 3:00pm - 4:50pm	KEB 2111	Lab

0102	Avik Dutt MW 11:00am - 11:50am Th 3:00pm - 4:50pm	Seats (Total: 42) HJP 0226 KEB 2111	 Lab
0103	Avik Dutt MW 11:00am - 11:50am Th 3:00pm - 4:50pm	Seats (Total: 29) HJP 0226 EGR 0312	 Lab
0106	Avik Dutt MW 11:00am - 11:50am W 3:00pm - 4:50pm	Seats (Total: 42) HJP 0226 KEB 2111	 Lab
0107	Avik Dutt MW 11:00am - 11:50am Th 5:00pm - 6:50pm	Seats (Total: 29) HJP 0226 EGR 0312	 Lab

ENME272 **Introduction to Computer Aided Design**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in MATH141. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME414 or ENME272.

Fundamentals of CAD, using solid modeling packages (Pro/E, SolidWorks, and Autodesk Inventor). Two and three dimensional drawing. Dimensioning and specifications. Introduction of CAD based analysis tools. Students will complete a design project.

0101	Mohammad Fazelpour M 8:00am - 9:50am	Seats (Total: 42) KEB 2111
0201	David Kriesberg Tu 8:00am - 9:50am	Seats (Total: 42) KEB 2111
0301	Mohammad Fazelpour W 8:00am - 9:50am	Seats (Total: 42) KEB 2111
0401	David Kriesberg Th 8:00am - 9:50am	Seats (Total: 42) KEB 2111
0501	Mohammad Fazelpour F 1:00pm - 2:50pm	Seats (Total: 42) KEB 2111

ENME299Z **Topics in Mechanical Engineering; The Legend of Zelda: A Link to Machine Design**

(Perm req)

Introductory topics in the field of mechanical engineering.

0101	Ryan Sochol W 9:00am - 9:50am	Seats (Total: 30) EGL 0105	

ENME331 **Fluid Mechanics**

(Perm req)

Prerequisite: ENES232 and ENES221. Credit only granted for: BIOE331, ENCE305, ENFP300, or ENME331.

Principles of fluid mechanics. Mass, momentum and energy conservation. Hydrostatics. Control volume analysis. Internal and external flow. Boundary layers. Modern measurement techniques. Computer analysis. Laboratory experiments.

0101	Amir Riaz, Cecilia Huertas Cerdeira MW 12:00pm - 12:50pm Tu 1:00pm - 2:50pm	Seats (Total: 50) BRB 1101 CCC 1111	Lab
0102	Cecilia Huertas Cerdeira, Amir Riaz MW 12:00pm - 12:50pm W 1:00pm - 2:50pm	Seats (Total: 50) BRB 1101 CCC 1111	Lab
0105	Amir Riaz, Cecilia Huertas Cerdeira MW 12:00pm - 12:50pm Tu 3:00pm - 4:50pm	Seats (Total: 50) BRB 1101 PHY 1204	Lab
0106	Amir Riaz, Cecilia Huertas Cerdeira MW 12:00pm - 12:50pm W 3:00pm - 4:50pm	Seats (Total: 50) BRB 1101 PHY 4221	Lab

ENME332 **Transfer Processes**

(Perm req)

Prerequisite: ENME331. Credit only granted for: ENME332 or ENFP312.

The principles of heat transfer. Conduction in solids. Convection. Radiation. Modern measurement techniques. Computer analysis.

0101	Amir Riaz, Siddhartha Das MW 9:00am - 9:50am Tu 1:00pm - 2:50pm	Seats (Total: 45) EGR 1202 CHE 2118	Lab

0102	Siddhartha Das, Amir Riaz MW 9:00am - 9:50am W 1:00pm - 2:50pm	Seats (Total: 45) EGR 1202 BPS 1236	 Lab
0103	Amir Riaz, Siddhartha Das MW 9:00am - 9:50am Th 1:00pm - 2:50pm	Seats (Total: 45) EGR 1202 CHE 2118	 Lab
0104	Amir Riaz, Siddhartha Das MW 9:00am - 9:50am F 1:00pm - 2:50pm *03/03/2022 (2208) Suz Holding 2 seats for Southern MD students which has been approved by Lisa Kiley.*	Seats (Total: 45) EGR 1202 PHY 2214	 Lab

ENME350 **Electronics and Instrumentation I**

(Perm req)

Prerequisite: PHYS271 and PHYS270.

Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments.

0101	Xinan Liu, Jungho Kim, Ratnesh Tiwari MW 8:00am - 8:50am M 1:00pm - 2:50pm	Seats (Total: 48) BRB 1101 EGR 3108	 Lab
0102	Jungho Kim, Ratnesh Tiwari, Xinan Liu MW 8:00am - 8:50am Th 1:00pm - 2:50pm	Seats (Total: 48) BRB 1101 EGR 3108	 Lab
0103	Ratnesh Tiwari, Jungho Kim, Xinan Liu MW 8:00am - 8:50am W 3:20pm - 5:10pm	Seats (Total: 48) BRB 1101 EGR 3108	 Lab
0104	Xinan Liu, Ratnesh Tiwari, Jungho Kim MW 8:00am - 8:50am Tu 3:20pm - 5:10pm	Seats (Total: 48) BRB 1101 EGR 3108	 Lab
0105	Jungho Kim, Ratnesh Tiwari, Xinan Liu MW 8:00am - 8:50am M 3:20pm - 5:10pm	Seats (Total: 48) BRB 1101 EGR 3108	 Lab

ENME351 **Electronics and Instrumentation II**

(Perm req)

Prerequisite: PHYS271, ENME350, and PHYS270.

Continuation of ENME 350. Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments.

0101	Steven Mitchell MW 10:00am - 10:50am Tu 1:00pm - 2:50pm	Seats (Total: 40) ESJ 2208 EGR 3108	 Lab
0102	Steven Mitchell MW 10:00am - 10:50am W 6:00pm - 7:50pm	Seats (Total: 40) ESJ 2208 EGR 3108	 Lab
0103	Steven Mitchell MW 10:00am - 10:50am W 1:00pm - 2:50pm *03/03/2022 (2208) Suz Holding 2 seats for Southern MD students which has been approved by Lisa Kiley.*	Seats (Total: 40) ESJ 2208 EGR 3108	 Lab
0104	Steven Mitchell MW 10:00am - 10:50am Tu 6:00pm - 7:50pm	Seats (Total: 40) ESJ 2208 EGR 3108	 Lab

ENME361 **Vibration, Controls and Optimization I**

(Perm req)

Prerequisite: ENES220, ENES221, and MATH246; and (MATH206 or ENME202). Restriction: Must be in Engineering: Mechanical program.

Fundamentals of vibration, controls and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical description of system response, system stability, control and optimization. Optimal design of mechanical systems.

0101	Hosam Fathy TuTh 9:30am - 10:45am	Seats (Total: 180) SPH 1312	

ENME371 **Product Engineering and Manufacturing**

(Perm req)

Prerequisite: ENES221; and (ENME392 or STAT400). Restriction: Must be in Engineering: Mechanical program.

Business aspects of engineering product development. Relationship of design and manufacturing. Product specification. Statistical process control. Design team development. The development process.

0101	Vincent Nguyen MW 11:00am - 11:50am Th 5:00pm - 6:50pm	Seats (Total: 35) ONLINE EGL 0101	 Lab
0102	Vincent Nguyen MW 11:00am - 11:50am Th 3:00pm - 4:50pm	Seats (Total: 35) ONLINE EGL 0101	 Lab
0103	Vincent Nguyen MW 11:00am - 11:50am F 9:00am - 10:50am *03/03/2022 (2208) Suz Holding 2 seats for Southern MD students which has been approved by Lisa Kiley.*	Seats (Total: 35) ONLINE EGL 0101	 Lab
0104	Vincent Nguyen MW 11:00am - 11:50am Th 7:00pm - 8:50pm	Seats (Total: 35) ONLINE EGL 0101	 Lab
0105	Vincent Nguyen MW 11:00am - 11:50am W 6:00pm - 7:50pm	Seats (Total: 35) ONLINE EGL 0101	 Lab

ENME382 **Introduction to Materials Engineering**

(Perm req)

Prerequisite: ENES100; and permission of ENGR-Mechanical Engineering department. Corequisite: MATH241. Recommended: PHYS261 and PHYS260. Restriction: Permission of ENGR-Mechanical Engineering department. Cross-listed with ENMA300. Credit only granted for: ENMA300 or ENME382.

Structure of materials, chemical composition, phase transformations, corrosion and mechanical properties of metals, ceramics, polymers and related materials. Materials selection in engineering applications.

0101	Luz Martinez-Miranda TuTh 3:30pm - 4:45pm	Seats (Total: 90) ATL 2324	
0301	Francis McCluskey MWF 10:00am - 10:50am	Seats (Total: 90) TMH 0301	

ENME392 **Statistical Methods for Product and Processes Development**

(Perm req)

Prerequisite: MATH241.

Integrated statistical methodology for the improvement of products and processes in terms of performance, quality and cost. Designed experimentation. Statistical process control. Software application. Laboratory activities.

Delivered via ITV.

0101	David Bigio TuTh 11:00am - 12:15pm	Seats (Total: 120) JMP 3201	
0201	Michel Cukier Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 120) JMP 3201 JMP 3201	

ENME400 **Machine Design**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in ENME361. Restriction: Permission of ENGR-Mechanical Engineering department.

Design of mechanical elements and planar machines. Failure theories. Design of pressure vessels, joints, rotating elements, and transmission elements. Kinematic structures, graphical, analytical, and numerical analysis and synthesis of linkages, gear trains, and flywheels are covered.

0101	Chandrasekhar Thamire MW 9:00am - 9:50am F 11:00am - 12:50pm	Seats (Total: 85) CSI 2117 CSI 2117	 Discussion
0201	Chandrasekhar Thamire TuTh 10:00am - 10:50am Th 4:00pm - 5:50pm	Seats (Total: 85) CHE 2108 CHE 2110	 Discussion

ENME401 **Entrepreneurial Design Realization**

(Perm req)

Restriction: Must have senior standing and permission of instructor. Cross-listed with: ENES401. Credit only granted for: ENME401, ENME489B or ENES401. Formerly: ENME489B.

The vision for this course, and an aspect that makes it unique, is to expose students to the opportunities and challenges of bringing a product design to reality (entrepreneurship). The emphasis is on environmentally and socially sustainable projects. The end-product of this course will be full-scale implementations or complete design "packages" that can be taken to potential stakeholders.

0101	David Bigio MW 5:00pm - 6:15pm	Seats (Total: 25) EGR 2116
0201	Vincent Nguyen TuF 3:00pm - 4:15pm	Seats (Total: 25) PHY 2106

ENME408 **Selected Topics in Engineering Design; Automotive Design**

(Perm req)

Creativity and innovation in design. Generalized performance analysis, reliability and optimization as applied to the design of components and engineering systems. Use of computers in design of multivariable systems.

Restriction: Must be in Engineering: Mechanical program; and senior standing. Or permission of ENGR-Mechanical Engineering department. Repeatable to 6 credits if content differs. Creativity and innovation in design. Generalized performance analysis, reliability and optimization as applied to the design of components an engineering systems. Use of computers in design of multivariable systems.

0101	Leonard Hamilton MW 5:00pm - 6:15pm	Seats (Total: 60) KEB 1200

ENME416 **Additive Manufacturing**

(Perm req)

Prerequisite: ENME331. And ENME272; or ENME414. Restriction: Permission of ENGR-Mechanical Engineering department.

Develop a comprehensive understanding of fundamental additive manufacturing, 3D printing approaches, including: extrusion-based deposition, stereolithography, powder bed-based melting, and inkjet-based deposition. Cultivate a design for-additive manufacturing skillset for CAD and CAM methodologies to produce successful 3D prints. Fabricate 3D mechanical objects using a variety of 3D printing technologies on campus. Execute a design project that demonstrates how additive manufacturing technologies can overcome critical limitations of traditional manufacturing processes.

0101	Ryan Sochol MWF 12:00pm - 12:50pm	Seats (Total: 50) JMP 2121

ENME417 **Numerical Methods in Engineering**

(Perm req)

Recommended: Senior standing. Restriction: Permission of ENGR-Mechanical Engineering department. Jointly offered with: ENME745. Credit only granted for: ENME745, ENME808B, ENME417 or ENME489J. Formerly: ENME489J.

Covers the fundamental aspects of how to apply analytical mathematical concepts to discrete data. The course is aimed at graduate students and senior undergraduate students in any area of engineering, and treats the material in a general manner that is not specific to any application or field of specialization.

0101	Johan Larsson	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	SPH 1301

ENME422 **Indoor Environment and Mechanical Systems**

Prerequisite: ENES232 and ENME332. Jointly offered with: ENME753. Credit only granted for: ENME422 or ENME753.

Fundamentals of indoor air quality and its measurements. Exploration of air cleaning technologies for gaseous, particulate and infectious agent contaminants. Simulations of air flow and contaminants with multi-zone models to allow testing of both contaminant dispersion in buildings and effectiveness of air cleaning technologies.

0101	Jelena Srebric	Seats (Total: 25)
	MW 12:00pm - 1:15pm	EGR 3106

ENME423 **Modern Climate Control and Building Energy Design/Analysis**

(Perm req)

Prerequisite: ENES232. Corequisite: ENME332. Restriction: Permission of ENGR-Mechanical Engineering department.

Fundamentals and design calculations of heat and moisture transfer in buildings; evaluation of cooling, heating and power requirements of buildings; building energy consumption simulations, use of alternative energy and energy conservation measures in buildings; fundamentals of fans/pumps and air/water distribution in buildings; introduction to refrigeration and energy systems for data centers and other mission-critical facilities.

Delivered via ITV.

0101	Michael Ohadi	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	JMP 1202

ENME425 **Energy Conversion Systems for Sustianability**

(Perm req)

Prerequisite: ENES232. Restriction: Permission of the Mechanical Engineering Department. Credit only granted for: ENME489X or ENME425. Formerly: ENME489X.

Focus on energy sustainability with view on changing global energy availability and use. Addresses the objective of greatly reducing our dependence on the finite amounts of fossil energy sources available for our quest to achieve environmentally benign sustainable energy for green environment. The emphasis will be on sustainability issues, discussion on supply, demand and storage, energy transmission, global warming and carbon management, biomass-resources, uses and production of biofuels, national energy policy discussion, carbon emission, energy security and economics to ensure future energy needs can be met without compromising the ability of future generation to meet their own needs with due considerations to increase in global temperatures.

0101	Ashwani Gupta Th 4:00pm - 6:40pm	Seats (Total: 17) JMP 2120

ENME426 **Production Management**

(Perm req)

Credit only granted for: BMGT385 or ENME426.

The basic concepts and models needed to understand and design manufacturing systems, including the history of manufacturing, performance measures, queuing systems, variability, production planning and scheduling, lean manufacturing, and pull production control.

0101	Moneer Helu MW 2:00pm - 3:15pm	Seats (Total: 53) PHY 1204

ENME430 **Fundamentals of Nuclear Reactor Engineering**

(Perm req)

Prerequisite: MATH246. Restriction: Permission of ENGR-Mechanical Engineering department.

Fundamental aspects of nuclear physics and nuclear engineering, including nuclear interactions; various types of radiation and their effects on materials and humans; and basic reactor physics topics, including simplified theory of reactor critically.

0101	Mahmoud Massoud TuTh 2:00pm - 3:15pm	Seats (Total: 40) JMP 2121

ENME432 **Reactor and Radiation Measurements Laboratory**

(Perm req)

Prerequisite: ENME430 and MATH246. Restriction: Permission of ENGR-Mechanical Engineering department.

Basics concepts of nuclear radiation and radiation detectors including types of radiation, radioactive decay, and interactions of radiation with matter.

0101	Amber Johnson	Seats (Total: 10)	
	Class time/details on ELMs	ONLINE	
	M 3:00pm - 6:00pm	CHE 2145	Lab

ENME441 **Mechatronics and the Internet of Things**

(Perm req)

Prerequisite: ENME351. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME489B or ENME441. Formerly: ENME489B.

Mechatronics and the Internet of Things combines sensors, actuators, computation, and communication to realize integrated objects capable of robust Internet-based interfacing. Students will gain experience with circuit development, mechatronic systems, MicroPython coding, and Internet communication protocols using the ESP32 microcontroller platform. The project-focused course combines lectures and hands-on labs to drive learning at the convergence of mechanics, electronics, and software domains for IoT smart object development.

0101	Don DeVoe	Seats (Total: 60)
	MW 3:30pm - 4:45pm	CSI 3117

ENME444 **Assistive Robotics**

(Perm req)

Prerequisite: ENME351; and must have completed or be concurrently enrolled in ENME462. Restriction: Permission of ENGR-Mechanical Engineering department.

Fundamentals of assistive robots used in a wide varietyof ways to help humans with disabilities. Three application areas will be covered: (1) Rehabilitation robotics to recover motor function from neurologic injuries such as stroke, (2) Prosthetics to enable mobility function in amputees, and (3) Social robotics for cognitive impairment and developmental disorders such as autism. Theory behind different control systems employed by assistive robotics, as well as the mechanical design, sensors & actuators, and user interfaces behind representative robots in the respective areas. Guidelines for designing assistive robots. Ethical and regulatory considerations in the design of assistive robots.

0101	Hugh Bruck, Douglas Summerlin	Seats (Total: 34)
	TuTh 12:30pm - 1:45pm	CHE 2136

ENME454 **Vehicle Dynamics**

(Perm req)

Corequisite: ENME361. Restriction: Permission of ENGR-Mechanical Engineering department.

The fundamentals of passenger vehicle and light truck design and vehicle dynamics are covered. The engineering principles associated with acceleration, braking, handling, ride quality, aerodynamics, and tire mechanics are discussed, as well as suspension and steering design.

0101	Vincent Nguyen MW 3:30pm - 4:45pm	Seats (Total: 66) JMP 3201	

ENME462 **Vibrations, Controls, and Optimization II**

(Perm req)

Prerequisite: ENME361. Restriction: Permission of the Mechanical Engineering Department.

Continuation of ENME361. Fundamentals of vibration, controls, and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical descriptions of system response, system stability, control and optimization. Optimal design of mechanical systems.

Delivered via ITV.

0101	Amr Baz MW 10:00am - 10:50am W 1:00pm - 2:50pm	Seats (Total: 40) JMP 3201 KEB 2111	 Discussion
0102	Amr Baz MW 10:00am - 10:50am F 3:00pm - 4:50pm	Seats (Total: 40) JMP 3201 KEB 2111	 Discussion
0103	Amr Baz MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 40) JMP 3201 KEB 2111	 Discussion
0201	Sami Ainane MW 10:00am - 10:50am M 2:00pm - 3:50pm	Seats (Total: 42) CSI 1115 KEB 2111	 Discussion
0202	Sami Ainane MW 10:00am - 10:50am M 11:00am - 12:50pm	Seats (Total: 42) CSI 1115 KEB 2111	 Discussion

ENME470 **Finite Element Analysis**

(Perm req)

Restriction: Senior standing; and permission of ENGR-Mechanical Engineering department.

Basic concepts of the theory of the finite element method. Applications in solid mechanics and heat transfer.

0101	Peter Chung TuTh 12:30pm - 1:45pm	Seats (Total: 48) JMP 2116	

ENME472 **Integrated Product and Process Development**

(Perm req)

Prerequisite: ENME331, ENME361, ENME351, and ENME371; and must have completed or be concurrently enrolled in ENME332. Restriction: Permission of the Department of Mechanical Engineering.

Integration of product development with the development process. Design strategies. Product architecture. Design for manufacturing. Selection of materials. Design for assembly.

0101	Shapour Azarm Tu 12:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) EGL 0105 ONLINE	 Discussion
0102	Aris Cleanthous Th 12:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) EGL 0105 ONLINE	 Discussion
0103	Miao Yu W 4:00pm - 5:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) EGL 0105 ONLINE	 Discussion
0104	Elisabeth Smela F 1:00pm - 2:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) EGL 0105 ONLINE	 Discussion
0105	Elisabeth Smela Tu 2:00pm - 3:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) EGL 0105 ONLINE	 Discussion

ENME473 **Mechanical Design of Electronic Systems**

(Perm req)

Design considerations in the packaging of electronic systems. Production of circuit boards and design of electronic assemblies. Vibration, shock, fatigue and thermal considerations.

Delivered via ITV.

0101	Bongtae Han MW 2:00pm - 3:15pm	Seats (Total: 25) JMP 2121

ENME480 **Introduction to Robotics**

(Perm req)

Prerequisite: MATH246 or ENES221; and (CMSC131, ENME202, ENAE202 or ENEE150). Restriction: Must be in the Robotics and Autonomous Systems minor; or Permission of ENGR-Mechanical Engineering department.

An introductory course in robotics that will educate students in the elementary concepts of robotics. The course will encompass both theory and experiments.

0101	Yancy Diaz-Mercado MW 2:00pm - 2:50pm Th 12:00pm - 2:00pm	Seats (Total: 37) KEB 1110 KEB 2111	 Lab
0102	Yancy Diaz-Mercado MW 2:00pm - 2:50pm F 8:00am - 10:00am	Seats (Total: 42) KEB 1110 KEB 2111	 Lab

ENME485 **Industrial AI**

(Perm req)

Prerequisite: ENME 202 or equivalent, experience using Python, or permission of the instructor. Jointly offered with: ENME691. Credit only granted for: ENME 485 or ENME 691.

In today's competitive business environments, companies have urgent needs to use advanced analytical tools to manage their data to gain more insights and make timely decisions. Those insights include equipment and machine health condition, system remaining useful life, system performance, and other key performance indicators. With the advent of smart networks and devices, an abundance of data now exists in virtually every level of industry, from the individual asset to different field applications. This data is often not used to its greatest potential. Most organizations understand the need for acquiring useful data, but do not understand how to make the data useable. This course will introduce AI for industrial applications in a systematical way including machine learning, prognostics and health management (PHM), data-centric engineering analytics--that ultimately enable students to gain effective abilities to systematically engineer industrial data and analytic tools to improve quality, reliability, productivity and resilience of industrial systems.

0101	Jay Lee M 5:00pm - 7:40pm	Seats (Total: 10) CHE 2136	

ENME488 **Special Problems**

(Perm req)

Advanced problems in mechanical engineering with special emphasis on mathematical and experimental methods.

Limited to mechanical engineering seniors.

Contact department for information to register for this course.

ENME489 **Special Topics in Mechanical Engineering**

(Perm req)

Selected topics of current importance in mechanical engineering.

Contact department for information to register for this course.

ENME489C **Special Topics in Mechanical Engineering; Sustainable Energy Conversion and the Environment**

Selected topics of current importance in mechanical engineering.

0101	Kurt Radermacher Tu 4:00pm - 6:40pm	Seats (Total: 10) JMP 2217

ENME489F **Special Topics in Mechanical Engineering; Dynamics of Atmospheric Flight**

(Perm req)

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME331.

0101	David Findlay W 3:30pm - 6:10pm	Seats (Total: 10) ONLINE

ENME489O **Special Topics in Mechanical Engineering; Design for Manufacturing and Assembly**

(Perm req)

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME382. Restriction: permission of department.

0101	Mohammad Fazelpour MW 1:00pm - 2:15pm	Seats (Total: 40) CHE 2136

ENME489U **Special Topics in Mechanical Engineering; Fluid Structure Interactions**

(Perm req)

Selected topics of current importance in mechanical engineering.

Prerequisites: ENME 361 and ENME 331.

0101	Eleonora Tubaldi TuTh 9:30am - 10:45am	Seats (Total: 10) ANS 0412

ENME489V **Special Topics in Mechanical Engineering; Mechanical Contracting**

(Perm req)

Selected topics of current importance in mechanical engineering.

0101	Michael Mack	Seats (Total: 30)
	Th 8:00am - 10:40am	MTH 0411

ENME489Z **Special Topics in Mechanical Engineering; Structural Mechanics - Aerospace Applications**

(Perm req)

Selected topics of current importance in mechanical engineering.

Prerequisite: ENES220 and MATH246. Restriction: permission of department.

Contact department for information to register for this course.

ENME605 **Advanced Systems Control**

Prerequisite: ENME462; or permission of instructor.

Modern control theory for both continuous and discrete systems. State space representation is reviewed and the concepts of controllability and observability are discussed. Design methods of deterministic observers are presented and optimal control theory is formulated. Control techniques for modifying system characteristics are discussed.

0101	Jin-Oh Hahn	Seats (Total: 25)
	MW 12:30pm - 1:45pm	CHE 2145

ENME610 **Engineering Optimization**

Overview of applied single- and multi- objective optimization and decision making concepts and techniques with applications in engineering design and/or manufacturing problems. Topics include formulation examples, concepts, optimality conditions, unconstrained/constrained methods, and post-optimality sensitivity analysis. Students are expected to work on a semester-long real-world multi-objective engineering project.

0101	Shapour Azarm	Seats (Total: 25)
	Tu 4:00pm - 6:40pm	EGR 2154

ENME631 **Advanced Conduction and Radiation Heat Transfer**

Prerequisite: ENME332; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Theory of conduction and radiation. Diffused and directional, poly- and mono-chromatic sources. Quantitative optics. Radiation in enclosures. Participating media. Integrodifferential equations. Multidimensional, transient and steady-state conduction. Phase change. Coordinate system transformations.

0101	Bao Yang	Seats (Total: 25)
	MW 2:00pm - 3:15pm	EGR 3114

ENME640 **Fundamentals of Fluid Mechanics**

Prerequisite: Must have completed partial differential equations at the level of MATH 462; or permission of ENGR-Mechanical Engineering department. Formerly: ENME651.

Equations governing the conservation of mass, momentum, vorticity and energy in fluid flows. Low Reynolds number flows. Boundary layers. The equations are illustrated by analyzing a number of simple flows. Emphasis is placed on physical understanding to facilitate the study of advanced topics in fluid mechanics.

0101	James Duncan	Seats (Total: 30)
	MW 3:30pm - 4:45pm	MTH 0401

ENME645 Fluid-Structure Interactions

Prerequisite: ENME331 and ENME361. Restriction: Must be a student in the Clark School of Engineering. Credit only granted for: ENME498U, ENME645 or ENME809C. Formerly: ENME809C.

Fundamentals of fluid-structure interactions, fluid-elastic instabilities (buckling, flutter, galloping) and their engineering applications. Possible domains of applications are civil engineering, aerospace engineering, ocean engineering, biomechanics, and soft robotics. Examples include tall bridges, aircraft wing, parachutes, solid rocket motor, turbomachinery, offshore platform, subsea pipelines, paper printing, MEMS mircochannels, blood flow in arteries, and heart valves. The fish swimming mechanics with be studied to inspire novel efficient propulsion mechanisms for soft robotics applications.

0101	Eleonora Tubaldi	Seats (Total: 15)
	TuTh 9:30am - 10:45am	ANS 0412

ENME670 Continuum Mechanics

Mechanics of deformable bodies, finite deformation and strain measures, kinematics of continua and global and local balance laws. Thermodynamics of continua, first and second laws. Introduction to constitutive theory for elastic solids, viscous fluids and memory dependent materials. Examples of exact solutions for linear and hyper elastic solids and Stokesian fluids.

0101	Teng Li	Seats (Total: 20)
	MW 11:00am - 12:15pm	EGR 2154

ENME672 Composite Materials

Micromechanics of advanced composites with passive and active reinforcements, mathematical models and engineering implications, effective properties and damage mechanics, recent advances in "adaptive" or "smart" composites.

0101	Hugh Bruck	Seats (Total: 25)
	Th 4:00pm - 6:40pm	JMP 2216

DE01	Hugh Bruck Class time/details on ELMs	Seats (Total: 10) ONLINE

ENME690 **Mechanical Fundamentals of Electronic Systems**

An understanding of the fundamental mechanical principles used in design of electronic devices and their integration into electronic systems will be provided. Focus will be placed on the effect of materials compatibility, thermal stress, mechanical stress, and environmental exposure on product performance, durability and cost. Both electronic devices and package assemblies will be considered. Analysis of package assemblies to understand thermal and mechanical stress effects will be emphasized through student projects.

0101	Bongtae Han MW 2:00pm - 3:15pm	Seats (Total: 25) JMP 2121
ER01	Bongtae Han Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Bongtae Han Class time/details on ELMs	Seats (Total: 5) ONLINE

ENME691 **Industrial AI**

Prerequisite: ENME202; or equivalent; experience using Python; or permission of the instructor. Credit only granted for: ENME485 or ENME691.

Introduces students to advanced technologies - such as machine learning and tools, prognostics and health management (PHM), and data-centric engineering analytics - that ultimately enable the conversion of industrial big data into decision-ready information that can be used to improve the design, the productivity and the efficiency of industrial systems.

0101	Jay Lee M 5:00pm - 7:40pm	Seats (Total: 20) CHE 2136
DE01	Jay Lee Class time/details on ELMs	Seats (Total: 20) ONLINE

ENME701 **Sustainable Energy Conversion and the Environment**

Prerequisite: Undergraduate thermodynamics course or permission of instructor.

Discussion of the major sources and end-uses of energy in our society with particular emphasis on renewable energy production and utilization. The course introduces a range of innovative technologies and discusses them in the context of the current energy infrastructure. Renewable sources such as wind and solar, and renewable enabling technologies such as energy storage are discussed in detail. Particular attention is paid to the environmental impact of the various forms of energy. This course is designed to provide, when taken together with ENME635, a comprehensive overview of sustainable energy production and utilization including carbon capture and sequestration.

0101	Kurt Radermacher Tu 4:00pm - 6:40pm	Seats (Total: 25) JMP 2217
ME01	Kurt Radermacher Class time/details on ELMs	Seats (Total: 10) ONLINE

ENME725 **Probabilistic Optimization**

Prerequisite: An advanced undergraduate course in probability and a graduate course in optimization or permission of the instructor required. Cross-listed with ENCE725. Credit only granted for: ENME725 or ENCE725.

Provide an introduction to optimization under uncertainty. Chance-constrained programming, reliability programming, value of information, two stage problems with recourse, decomposition methods, nonlinear and linear programming theory, probability theory. The objectives of this course are to provide understanding for studying problems that involve optimization under uncertainty, learn about various stochastic programming formulations (chance constrained programs, two stage methods with recourse, etc.) relevant to engineering and economic settings, present theory for solutions to such problems, and present algorithms to solve these problems.

0101	Steven Gabriel W 9:30am - 12:00pm	Seats (Total: 25) JMP 2217
DE01	Steven Gabriel Class time/details on ELMs	Seats (Total: 10) ONLINE

ENME737 **Application of AI in Reliability: Prognostics and Systems Health Management (PHM)**

Credit only granted for: ENME737 or ENME808A. Formerly: ENME808A.

Prognostics and health management (PHM) is an enabling discipline consisting of technologies and methods to assess the reliability of a product in its actual life cycle conditions to determine the advent of failure and mitigate system risk. PHM permits the reliability of a system to be evaluated and predicted in its actual application conditions. In recent years, prognostics and health management (PHM) has emerged as a key enabling technology to provide an early warning of failure; to forecast maintenance as needed; to reduce maintenance cycles; to assess the potential for life extensions; and to improve future designs and qualification methods. In the future, PHM will enable systems to assess their own real-time performance (self-cognizant health management and diagnostics) under actual usage conditions and adaptively enhance life cycle sustainment with risk-mitigation actions that will virtually eliminate unplanned failures.

0101	Michael Pecht, Michael Azarian M 9:30am - 12:10pm	Seats (Total: 25) JMP 2217
ER01	Michael Azarian, Michael Pecht Class time/details on ELMs	Seats (Total: 10) ONLINE
RE01	Michael Azarian, Michael Pecht Class time/details on ELMs	Seats (Total: 5) ONLINE

ENME744 **Additive Manufacturing**

Prerequisite: ENME272 and ENME331; or students who have taken courses with comparable content may contact the department. Jointly offered wit h ENME416. Credit only granted for: ENME 416 OR ENME 744.

Develop a comprehensive understanding of fundamental additive manufacturing-alternatively, "three-dimensional (3D) printing-approaches, including extrusion-based deposition, stereolithography, powder bed-based melting, and inkjet-based deposition. Cultivate a "design-for-additive manufacturing" skill set for combining computer-aided design (CAD) and computer-aided manufacturing (CAM) methodologies to produce successful 3D prints. Fabricate 3D mechanical objects using a variety of 3D printing technologies on campus. Execute a design project that demonstrates how additive manufacturing technologies can overcome critical limitations of traditional manufacturing processes.

DE01	Ryan Sochol Class time/details on ELMs	Seats (Total: 15) ONLINE

ENME745 **Numerical Methods in Engineering**

Jointly offered with: ENME417. Credit only granted for: ENME745, ENME808B, ENME417 or ENME489J. Formerly: ENME808B.

Fundamental aspects of how to apply analytical mathematical concepts to discrete data. The course is aimed at graduate students in any area of engineering, and treats the material in a general manner that is not specific to any application or field of specialization.

0101	Johan Larsson TuTh 11:00am - 12:15pm	Seats (Total: 30) SPH 1301

ENME753 **Indoor Environment and Mechanical Systems**

Jointly offered with: ENME422. Credit only granted for: ENME422, ENME753, or ENME808U. Formerly: ENME808U.

Fundamentals of indoor air quality and its measurements. Exploration of air cleaning technologies for gaseous, particulate and infectious agent contaminants. Simulations of air flow and contaminants with multi-zone models to allow testing of both contaminant dispersion in buildings and effectiveness of air cleaning technologies.

0101	Jelena Srebric MW 12:00pm - 1:15pm	Seats (Total: 10) EGR 3106

ENME770 **System Sustainment: The Science and Policy of Sustaining Critical Systems**

Credit only granted for: PLCY798J or ENME770.

Introduces the important attributes of system sustainment (system maintenance, support and upgrade) by integrating data analytics, cost analysis and public policy. Topics include: acquisition, reliability, maintenance, availability, inventory management, supply chain, life-cycle cost and contracting.

0101	William Lucyshyn, Peter Sandborn Tu 1:00pm - 3:40pm	Seats (Total: 25) JMP 2217
ER01	Peter Sandborn, William Lucyshyn Class time/details on ELMs	Seats (Total: 10) ONLINE
RE01	Peter Sandborn, William Lucyshyn Class time/details on ELMs	Seats (Total: 5) ONLINE

ENME799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

ENME808 **Advanced Topics in Mechanical Engineering**
Contact department for information to register for this course.

ENME808Q **Advanced Topics in Mechanical Engineering; Modern Climate Control and Building Energy Design/Analysis**

(Perm req)

Prerequisite: ENES232. Corequisite: ENME332. Restriction: Permission of ENGR-Mechanical Engineering department. Fundamentals and design calculations of heat and moisture transfer in buildings; evaluation of cooling, heating and power requirements of buildings; building energy consumption simulations, use of alternative energy and energy conservation measures in buildings; fundamentals of fans/pumps and air/water distribution in buildings; introduction to refrigeration and energy systems for data centers and other mission-critical facilities.

0101	Michael Ohadi TuTh 12:30pm - 1:45pm	Seats (Total: 3) JMP 1202

ENME898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENME899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENPM Engineering, Professional Masters Fall 2023

ENPM611 **Software Engineering**

Prerequisite: Competency in one programming language; and must have completed an undergraduate software engineering course.

Software engineering concepts, methods, and practices important to both the theorist and the practitioner will be covered. The entire range of responsibilities expected of a software engineer are presented. The fundamental areas of requirements development, software design, programming languages, and testing are covered extensively. Sessions on supporting areas such as systems engineering, project management, and software estimation are also included.

0101	Christopher Ackermann M 4:00pm - 6:40pm	Seats (Total: 52) JMP 2121
0201	Christopher Ackermann M 1:00pm - 3:40pm	Seats (Total: 48) JMP 2116
SW01	Christopher Ackermann Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM613 **Software Design & Implementation**

(Perm req)

Prerequisite: ENPM611. Restriction: Permission of Maryland Applied Graduate Engineering.

Covers the software design process, from understanding the need or problem, to creating suitable architecture and detailed design solutions, to preserving and evolving the design during implementation and maintenance. The main study topics include: requirements analysis models; user centered design; architecture design through decomposition and composition; architecture styles and architecture tactics for supporting various quality attributes such as security and usability; design for reuse and with reuse; detailed design object-oriented principles (such as SOLID) and design patterns; approaches for evaluating, comparing, and selecting design solutions; standard notations for documenting architecture views, detailed design, and analysis models; and industry standards for creating design deliverables. Students will acquire not only technical knowledge, but also soft skills such as communication, collaborations, critical thinking, leadership, negotiation, and time management.

0101	Tony Barber W 7:00pm - 9:40pm	Seats (Total: 75) JMP 3201
SW01	Tony Barber Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM615 **Embedded Systems**

Prerequisite: Must have completed undergraduate courses in logic design, computer architecture, and programming.

Introduction to embedded systems design and evaluation: requirements, specification, architecture, hardware and software components, integration and performance evaluation. Topics include instruction sets, CPU, embedded computing platform, program design and analysis, operating systems, hardware accelators, multiprocessors, networks, and system analysis. Real-life embedded systems design examples will be used throughput the course to illustrate these concepts.

0101	Manoj Franklin Th 4:00pm - 6:40pm	Seats (Total: 25) JMP 2217
DE01	Manoj Franklin Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM622 **Energy Conversion I - Stationary Power**

Thermal engineering of modern power generation systems. Cycle analysis of various modern power generation technologies including gas turbine, combined cycle, waste burning and cogeneration. Energy storage and energy transport.

0101	Patrick Caton Th 7:00pm - 9:40pm	Seats (Total: 25) JMP 2217
ME01	Patrick Caton Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM623 **Engineering Combustion Emissions for Air Pollution Control**

Analysis of the sources and mechanisms of combustion generated air pollution. Air pollution due to internal combustion engines, power generation and industrial emissions. Techniques to minimize and control emission.

0101	Jim Cowart M 7:00pm - 9:40pm	Seats (Total: 25) JMP 2116
ME01	Jim Cowart Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM631 **TCP/IP Networking**

(Perm req)

Prerequisite: ENPM602; or permission of instructor. Restriction: Permission of Maryland Applied Graduate Engineering.

Exploration of how such a variety of devices can use a big range of technologies to connect seamlessly to each other. In the second half of the course we translate the basic knowledge of the protocols to more hands-on exercises in containerization (Docker) and at the end we give an introduction to Kubernetes, that is an open-source system for automating deployment and management of containerized applications.

0101	Pedram Fard W 7:00pm - 9:40pm	Seats (Total: 52) JMP 2121
DE01	Pedram Fard Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM634 **Penetration Testing**

Prerequisite: Familiarity with Linux and Windows operating systems, as well as TCP/IP and basic networking concepts. Credit only granted for: ENPM809Q or ENPM634. Formerly: ENPM809Q.

This course will give students a hands-on deep dive into penetration testing tools and methodologies. Starting with reconnaissance, open source intelligence, and vulnerability scanning we will move on to exploiting both clients and servers, moving laterally through a network while evading security measures.

0101	Michael Wittner M 7:00pm - 9:40pm	Seats (Total: 50) JMP 3201
0201	Edward Condon W 1:00pm - 3:40pm	Seats (Total: 30) JMP 2116
0301	Bertrand Sobesto Th 7:00pm - 9:40pm	Seats (Total: 50) KEB 1110

CY01	Michael Wittner Class time/details on ELMs	Seats (Total: 30) ONLINE

ENPM640 **Rehabilitation Robotics**

Recommended: Basic understanding of linear time-invariant control systems (e.g. ENPM667) is preferred but not required. No background or previous experience in assistive robotics, human biomechanics, and/or neuroscience is required. Credit only granted for: ENPM808J, ENPM640, or ENME444. Formerly: ENPM808J.

An introduction to a field of robotics dedicated to improving the lives of people with disabilities. The course is designed for students wishing to learn more about rehabilitation robotics, one of the fasting growing fields of robotics. Rehabilitation robotics is the application of robots to overcome disabilities resulting from neurologic injuries and physical trauma, and improve quality of life. This course considers not only engineering design and development, but also the human factors that make some innovative technologies successful and others commercial failures. Engineering innovation by itself, without considering other factors such as evidence-based R&D and product acceptance, may mean that some technologies don't become or remain available or are inefficacious to aid their intended beneficiaries. This course differs from medical robotics in its focus on improving the quality of life through robot-mediated rehabilitation treatments, rather than improving or enhancing applications such as surgical interventions.

0101	Anindo Roy M 4:00pm - 6:40pm	Seats (Total: 29) JMP 2217
RO01	Anindo Roy Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM645 **Human-Robot Interaction**

Recommended: Some knowledge of A.I. fundamentals and data analytics recommended, but not required. Credit only granted for: ENPM808K or ENPM645. Formerly: ENPM808K.

To define the intersection of human-robot interactions to include human-computer interfaces, as well as robotic emotions and facial expressions emulations. The result will provide a basis for students to assess the best approaches for interacting effectively with robots. Areas to be covered include biologically-inspired robotics, cognitive robotics, cultural and social aspects of robotics, data mining, examples of human systems interfaces, and machine learning with respect to A.I. principles and limitations.

0101	Josef Schaff Th 7:00pm - 9:40pm	Seats (Total: 38) JMP 2216
0201	Josef Schaff Th 4:00pm - 6:40pm	Seats (Total: 48) JMP 2116

RO01	Josef Schaff Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM657 **Applied Cryptography**

Recommended: Knowledge of C programming. Credit only granted for: ENPM809A or ENPM657. Formerly: ENPM809A.

The goal of this course is to provide students with a foundational understanding of cryptography as used in the real world. Students will learn about private-key encryption, message authentication codes, key-exchange protocols, public-key encryption, and digital signatures, in addition to learning about underlying primitives such as pseudorandom number generators, block ciphers, and hash functions. The course will also try to convey the "cryptographic mindset," including formal threat modeling and proofs of security. We will emphasize real-world usage of cryptography by covering standards and best practices, discussing attacks on deployed systems, and giving programming assignments meant to reinforce the concepts covered in class.

0101	Daniel Apon F 1:00pm - 3:40pm	Seats (Total: 39) JMP 2222
CY01	Daniel Apon Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM662 **Introduction to Robot Modeling**

This course introduces basic principles for modeling a robot. Most of the course is focused on modeling manipulators based on serial mechanisms. The course begins with a description of the homogenous transformation and rigid motions. It then introduces concepts related to kinematics, inverse kinematics, and Jacobians. This course then introduces Eulerian and Lagrangian Dynamics. Finally, the course concludes by introducing basic principles for modeling manipulators based on parallel mechanisms. The concepts introduced in this course are subsequently utilized in control and planning courses.

0101	Reza Monfaredi Tu 1:00pm - 3:40pm	Seats (Total: 39) JMP 2222
0201	Reza Monfaredi Tu 4:00pm - 6:40pm	Seats (Total: 52) JMP 2121
0301	Reza Monfaredi Tu 7:00pm - 9:40pm	Seats (Total: 48) JMP 2116
RO01	Reza Monfaredi Class time/details on ELMs	Seats (Total: 25) ONLINE

ENPM665 **Cloud Security**

Credit only granted for: ENPM809J or ENPM665. Formerly: ENPM809J.

Covers the fundamentals of securing cloud-based workloads from the ground up with many hands-on examples. Through these hands-on exercises the course will demonstrate where the similarities and differences are when securing the cloud compared to securing traditional IT.

0101	Kevin Shivers W 4:00pm - 6:40pm	Seats (Total: 49) JMP 2121
0201	Everett Daviage W 7:00pm - 9:40pm	Seats (Total: 38) JMP 2216
0301	Everett Daviage W 4:00pm - 6:40pm	Seats (Total: 39) JMP 2222
CY01	Kevin Shivers Class time/details on ELMs	Seats (Total: 11) ONLINE

ENPM667 **Control of Robotic Systems**

This is a basic course on the design of controllers for robotic systems. The course starts with mainstay principles of linear control, including a review of elementary concepts of systems, and discusses applications to independent joint control. The second part of the course introduces a physics-based approach to control design that uses energy and optimization principles to tackle the design of controllers that exploit the underlying dynamics of robotic systems. The course ends with an introduction to force control and basic principles of geometric control if time allows.

0101	Waseem Malik M 7:00pm - 9:40pm	Seats (Total: 40) JMP 2121
0201	Waseem Malik M 4:00pm - 6:40pm	Seats (Total: 48) JMP 2116
0301	Waseem Malik Th 7:00pm - 9:40pm	Seats (Total: 39) JMP 2222
RO01	Waseem Malik Class time/details on ELMs	Seats (Total: 25) ONLINE

ENPM672 **Fundamentals for Thermal Systems**

(Perm req)

Prerequisite: Undergraduate engineering, physics or chemistry degree. Restriction: Permission of Maryland Applied Graduate Engineering.

Included in this course is an introduction to thermodynamics, fluid mechanics and heat transfer. Emphasis is on gaining an understanding of the physical concepts through the solving of numerical problems associated with simple thermal fluid processes and cycles. Both ideal gases and multiphase fluids will be considered as the working fluids.

0101	Siddhartha Das Tu 4:00pm - 6:40pm	Seats (Total: 17) JMP 2120
ME01	Siddhartha Das Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM687 **Digital Forensics and Incidence Responses**

Prerequisite: Experience with both Windows and Unix-based operating systems, including using the command line.

Students will implement a robust incident response methodology, including proper forensic handling of evidence, and cover legal aspects of national and international law regarding forensics. The bulk of the course covers evidence acquisition, preservation, analysis and reporting on multiple platforms.

0101	Ryan Kropff M 4:00pm - 6:40pm	Seats (Total: 39) JMP 2222
CY01	Jonas Amoonarquah Class time/details on ELMs	Seats (Total: 75) ONLINE

ENPM691 **Hacking of C programs and Unix Binaries**

(Perm req)

Teaches the fundamentals of secure programming in C. An in depth discussion on various security vulnerabilities (e.g., buffer overflows) in C applications will be taught with hands-on demo of concepts during the class. Students will learn how a C program runs "under-the-hood". The course will teach nitty-gritty of C programs by analyzing at the assembly level. The course discusses best practices (e.g., coding standards) and design principles for secure programming so that security can be built-in during design time. In addition to assignments, students are required to present papers related to this course.

0101	Dharmalingam Ganesan F 2:00pm - 4:40pm	Seats (Total: 48) JMP 2121
0201	Dharmalingam Ganesan Tu 7:00pm - 9:40pm	Seats (Total: 60) JMP 3201
CY01	Dharmalingam Ganesan Class time/details on ELMs	Seats (Total: 40) ONLINE

ENPM694 **Networks and Protocols**

Provides an in-depth review of the Internet with a focus on the end-to-end effects of technologies and protocols that operate in different layers. All protocols and technologies are covered in a holistic framework with an emphasis on their effect on the network and application performance. The course also includes a brief introduction of more modern concepts in the field of networking such as SDN and NFV to encourage deeper study of those topics.

0101	Majid Raissi-Dehkordi W 4:00pm - 6:40pm	Seats (Total: 29) JMP 2217
0201	Majid Raissi-Dehkordi Tu 4:00pm - 6:40pm	Seats (Total: 48) JMP 2116
0301	Majid Raissi-Dehkordi Tu 7:00pm - 9:40pm	Seats (Total: 38) JMP 2216
CY01	Majid Raissi-Dehkordi Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM695 **Secure Operating Systems**

Prerequisite: ENPM691 and CMSC106; or permission of instructor. Restriction: Permission of Maryland Applied Graduate Engineering. Additional information: This course assumes knowledge of C programming and a previous operating systems class or knowledge in various issues such as process management, process synchronization, the critical section problem, CPU scheduling, memory management, secondary storage management.

Operating systems are the basic building block on which programmers build applications and on which security-minded professionals rely, whether they are monitoring activity on a computer, testing applications for security, or determining how malicious code affected their network. This course covers advanced topics in operating systems including process management and communication, remote procedure calls, memory management (including shared memory and virtual memory), checkpointing and recovery, file system, I/O subsystem and device management, distributed file systems and security. The course consists of reading and discussing research papers and includes a course project.

0101	Ido Dubrawsky Th 4:00pm - 6:40pm	Seats (Total: 52) JMP 2121
CY01	Ido Dubrawsky Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM696 **Reverse Software Engineering**

*Prerequisite: ENEE150 or equivalent. Recommended: Proficiency with using a *nix command line in a shell of their choice, e.g., Bash, Zsh, csh. Ability to create and manage virtual machines running intel-based Linux and Windows distributions.*

An in-depth understanding of software reverse engineering concepts and hands-on training with reverse engineering tools, including disassemblers, decompilers, and code analyzers. Students will become familiar with both low-level software and the x86 instruction set through binary reversing sessions. This course also provides insights into many subjects such as system security, source code analysis, software design, and program understanding that will be beneficial in a variety of fields.

0101	Allen Hazelton W 4:00pm - 6:40pm	Seats (Total: 48) JMP 2116
0201	Allen Hazelton Tu 7:00pm - 9:40pm	Seats (Total: 49) CHE 2118
SW01	Allen Hazelton Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM808 **Advanced Topics in Engineering**

(Perm req)

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	George Syrmos Contact instructor or department for details.	Seats (Total: 40)
0401	George Syrmos, Sasan Haghani Contact instructor or department for details.	Seats (Total: 2)

ENPM808L **Advanced Topics in Engineering; Analytics for Decision Support**

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

Understand organizational decision-making characteristics and the roles of analytics and decision support systems to enhance and optimize outcomes. Through hands-on practice, be able to lead/collaborate to implement a data analytics project to support organizational goals and measure its effectiveness.

0101	Wiehrs Collier M 7:00pm - 9:40pm	Seats (Total: 38) JMP 2216
DE01	Wiehrs Collier Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM808W **Advanced Topics in Engineering; Data Science**

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

The purpose of this course is to teach some of the best and most general approaches to get the most out of data through clustering, classification, and regression techniques. Students will gain experience analyzing several kinds of data, including document collections, financial data, scientific data, and natural images.

0101	A Seyed W 7:00pm - 9:40pm	Seats (Total: 29) JMP 2217
DE01	A Seyed Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM808X **Advanced Topics in Engineering; Software Development for Robotics**

(Perm req)

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

Prerequisite: ENPM809Y or equivalent This course teaches the tools and processes to develop professional quality software for deployed systems and products. Students will learn the best practices of taking new ideas or prototypes, and understanding what it takes to build the complex software that is so important to today s commercialized robotic systems.

0101	Tommy Chang Tu 7:00pm - 9:40pm	Seats (Total: 48) JMP 2121
RO01	Tommy Chang Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM809F **Special Topics in Engineering; Internet of Things**

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

This course covers the fundamental aspects of Internet of Things (IoT) including IoTarchitecture, network protocols, data management and access technologies, IoT security threats and technologies.

0101	Benjamin Greene Tu 7:00pm - 9:40pm	Seats (Total: 17) JMP 2120
DE01	Benjamin Greene Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM809K **Special Topics in Engineering; Fundamentals for Artificial Intelligence and Deep Learning Framework**

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

This class will introduce fundamentals of machine learning techniques and deep dive in cutting edge concepts that enabled neural networks to achieve state of the art performance in many visual, textual, and biomedical problems.

0101	George Zaki Th 7:00pm - 9:40pm	Seats (Total: 52) JMP 2121
0201	George Zaki W 7:00pm - 9:40pm	Seats (Total: 48) JMP 2116
CY01	George Zaki Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM809W **Special Topics in Engineering; Introduction to Secure Coding for Software Engineering**

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

This course will cover core concepts and techniques to analyze and characterize such security bugs, and potential ways to mitigate them. Concepts will be introduced and discussed within the context of an adversary intent on altering or subverting the behavior of the software with security impacts.

0101	Gananand Kini W 7:00pm - 9:40pm	Seats (Total: 39) JMP 2222
0201	Gananand Kini W 4:00pm - 6:40pm	Seats (Total: 38) JMP 2216
SW01	Gananand Kini Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM809Y **Special Topics in Engineering; Introductory Robot Programming**

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

This hands-on course will introduce students to the C++ programming language and is specifically designed for students who have had little to no programming experience in their previous studies.

0101	Zeid Kootbally Tu 7:00pm - 9:40pm	Seats (Total: 29) JMP 2217
0201	Zeid Kootbally Th 7:00pm - 9:40pm	Seats (Total: 75) JMP 3201
RO01	Zeid Kootbally Class time/details on ELMs	Seats (Total: 20) ONLINE

ENRE Reliability Engineering Fall 2023

ENRE489 **Special Topics in Reliability Engineering**

(Perm req)

Selected topics of current importance in reliability engineering.

Contact department for information to register for this course.

ENRE600 **Fundamentals of Failure Mechanisms**

(Perm req)

Restriction: Permission of ENGR-Mechanical Engineering. Cross-listed with: ENMA626. Credit only granted for: ENMA626, ENMA698M, ENMA698R, or ENRE600.

Advanced failure mechanisms in reliability engineering wiil be taught from a basic materials and defects point of view. The methods of predicting the physics of failure of devices, materials, components and systems are reviewed. The main emphasis will be given to basic degradation mechanisms through understanding the physics, chemistry, and mechanics of such mechanisms. Mechanical failures are introduced through understanding fatigue, creep and yielding in materials, devices and components. The principles of cumulative damage and mechanical yielding theory are taught. The concepts of reliability growth, accelerated life testing, environmental testing are introduced. Physical, chemical and thermal related failures are introduced through a basic understanding of degradation mechanisms such as diffusion, electromigration, defects and defect migration. The failure mechanisms in basic material types will be taught. Failure mechanisms observed in real electronic devices and electronic packaging will also be presented. Problems related to manufacturing, and microelectronics will be analyzed. Mechanical failures are emphasized from the point of view of complex fatigue theory.

Sections that begin with a letter are taught via ITV and are not intended for College Park campus students.

0101	Abhijit Dasgupta M 1:00pm - 3:40pm	Seats (Total: 29) JMP 2217
ER01	Abhijit Dasgupta Class time/details on ELMs	Seats (Total: 20) ONLINE

RE01	Abhijit Dasgupta Class time/details on ELMs	Seats (Total: 4) ONLINE

ENRE602 **Principles of Reliability Analysis**

Cross-listed with: ENNU652.

Principal methods of reliability analysis, including fault tree and reliability block diagrams; Failure Mode and Effects Analysis (FMEA); event tree construction and evaluation; reliability data collection and analysis; methods of modeling systems for reliability analysis. Focus on problems related to process industries, fossil-fueled power plant availability, and other systems of concern to engineers.

Sections that begin with a letter are taught via ITV and are not intended for College Park campus students.

0101	Katrina Groth W 1:00pm - 3:40pm	Seats (Total: 20) JMP 2217
ER01	Katrina Groth Class time/details on ELMs	Seats (Total: 10) ONLINE
RE01	Katrina Groth Class time/details on ELMs	Seats (Total: 10) ONLINE

ENRE641 **Probabilistic Physics of Failure and Accelerated Testing**

Models for life testing at constant stress. Graphical and analytical methods. Test plans for accelerated testing. Competing failure modes and size effects. Models and data analyses for step and time varying stresses. Optimizing of test plans.

0101	Mohammad Modarres W 12:00pm - 2:40pm	Seats (Total: 13) JMP 2222
ER01	Mohammad Modarres Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Mohammad Modarres Class time/details on ELMs	Seats (Total: 15) ONLINE

ENRE648 **Special Problems in Reliability Engineering**

(Perm req)

For students who have definite plans for individual study of approved problems. Credit given according to extent of work.

Contact department for information to register for this course.

ENRE648M **Special Problems in Reliability Engineering; Risk Analysis in Engineering and Economics**

For students who have definite plans for individual study of approved problems. Credit given according to extent of work.

Cross-listed with ENCE489L, ENCE620, and ENSE698R. Credit only granted for ENCE489L, ENCE620, ENRE648M, or ENSE698R.

0101	Bilal Ayyub W 2:00pm - 4:40pm	Seats (Total: 20) CHE 2140

ENRE670 **Probabilistic Risk Assessment**

Prerequisite: ENRE602.

Why study risk, sources of risk, overview of Risk Assessment and Risk Management, relation to System Safety and Reliability Engineering; measures, representation, communication, and perception of risk; overview of use of risk assessment results in decision making; overview of Probabilistic Risk Assessment (PRA) process; detailed converge of PRA methods including (1) methods for risk scenario development such as identification of initiators, event sequence diagrams, event trees, causal modeling (fault trees, influence diagrams, and hybrid methods), and simulation approaches; (2) methods of risk scenario likelihood assessment, including quantitative and qualitative approaches, as well as uncertainty modeling and analysis. Also covers methods for risk modeling of system hardware behavior, physical phenomena, human behavior, software behavior, organizational environment, and external physical environment. Additional core topics include risk model integration and quantification (Boolean-based, binary decsion diagram, Bayesian belief networks, and hybrid methods), simulation-based Dynamic PRA methods (discrete and continuous) and several examples of large scale PRAs for space missions, nuclear power, aviation and medical systems.

0101	Mohammad Modarres, Yunfei Zhao Th 3:00pm - 5:40pm	Seats (Total: 17) JMP 2222
ER01	Mohammad Modarres, Yunfei Zhao Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Mohammad Modarres, Yunfei Zhao Class time/details on ELMs	Seats (Total: 10) ONLINE

ENRE799 **Master's Thesis Research**
Contact department for information to register for this course.

ENRE898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENRE899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENSE Systems Engineering Fall 2023

ENSE621 **Systems Engineering Concepts and Processes: A Model-Based Approach**

(Perm req)

Restriction: Permission of ENGR-Institute for Systems Research. Credit only granted for: ENPM641 or ENSE621.

An INCOSE-oriented introduction to model-based systems engineering. Provides an overview of systems engineering concepts, processes and methods, with a particular focus on: the development of stakeholder and system requirements; characteristics of well-written requirements; the use of SysML software tools to develop of system- and element-level architectures; and the relationship between requirements and architecture. Architecture-related topics include specification and visualization of system attributes, behavior, and interfaces. Other topics include acquisition and development life cycle models; operational concepts and use cases; requirements and design traceability; analysis, modeling and simulation; systems engineering management; risk management; configuration management; systems-of-systems; and system complexity. The course includes a class project in which teams of 3-5 students use SysML to develop stakeholder requirements, system requirements, and a logical system architecture for an engineered system of interest to them and then perform a design trade-off analysis for some aspect of the system.

0101	Tony Barber Tu 7:00pm - 9:40pm	Seats (Total: 22) JMP 2222
DE01	Tony Barber Class time/details on ELMs	Seats (Total: 15) ONLINE

ENSE623 **System Development, Verification, and Validation**

(Perm req)

Prerequisite: Permission of ENGR-Institute for Systems Research; and ENSE622. Credit only granted for: ENPM643 or ENSE623.

This course completes the ENSE621, ENSE622 sequence. It covers system simulation development and a variety of verification and validation topics. It addresses development testing and operational testing; test methodologies; the planning of test programs and Test and Evaluation Master Plans (TEMPs); the planning and execution of tests; and the writing of test plans and test reports. Topics include verification methods; specification-based testing; test verification matrices; model-based verification; model checking and other formal approaches to verification; design of experiments; performance testing; reliability testing; usability/human factors testing; and other types of testing. The course includes a class project in which teams of 3-5 students: develop requirements for a simulation that supports a system analysis of interest (the user need); develop the simulation (in MATLAB); verify that it meets its requirements; and validate that it may be used to support the analysis of interest.

0101	Steven Biemer Th 7:00pm - 9:40pm	Seats (Total: 17) JMP 2120

DE01	Steven Biemer Class time/details on ELMs	Seats (Total: 15) ONLINE

ENSE626 **System Life Cycle Analysis and Risk Management**

(Perm req)

Prerequisite: Permission of ENGR-Institute for Systems Research.

This course covers topics related to estimating the costs and risks incurred through the lifetimes of projects, products and systems. In addition, treatment is given to methods that determine the drivers of costs and risks and facilitate determination of the most effective alternatives to reducing them. Also covered, are relevant analytic tools from probability and statistics and also important managerial and organizational concepts. Extensive use is made of case studies and examples from industry and government.

0101	Dane Cooper M 7:00pm - 9:40pm	Seats (Total: 20) JMP 2222
DE01	Dane Cooper M 7:00pm - 9:40pm	Seats (Total: 15) ONLINE

ENSE698R **Special Topics in Systems Engineering; Risk Analysis in Engineering and Economics**

Cross-listed with ENCE489L, ENCE620, and ENRE648M. Credit only granted for ENCE489L, ENCE620, ENRE648M, or ENSE698R.

0101	Bilal Ayyub W 2:00pm - 4:40pm	Seats (Total: 20) CHE 2140

ENSE699 **Directed Study in Systems Engineering**

(Perm req)

Directed study in Systems Engineering.

Contact department for information to register for this course.

ENSE799 **Systems Engineering Thesis; Masters Thesis Research**

(Perm req)

The application of systems engineering concepts, principles, and theories will be applied to the Master's Thesis project. Project/thesis work will be defined and selected early in student's program and supervised by a university faculty mentor.

Contact department for information to register for this course.

ENSP Environmental Science and Policy Fall 2023

ENSP101 **Introduction to Environmental Science**

One of two required courses that introduce students to the topics studied and methods employed in environmental science and policy. Emphasis on scientific ways of knowing; the systems, cycles, flows, and interfaces that characterize the atmosphere, lithosphere, hydrosphere, and biosphere; the analysis of human impacts on these systems; and the nature of scientific uncertainty and methods of quantifying environmental processes.

0101	Annette Spivy TuTh 11:00am - 12:15pm Th 2:00pm - 2:50pm	Seats (Total: 25) SHM 2102 TYD 2111	Discussion
0102	Annette Spivy TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 24) SHM 2102 MTH 0411	Discussion
0103	Annette Spivy TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 24) SHM 2102 MTH 0403	Discussion
0104	Annette Spivy TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 24) SHM 2102 CHE 2145	Discussion
0105	Annette Spivy TuTh 11:00am - 12:15pm Th 2:00pm - 2:50pm	Seats (Total: 25) SHM 2102 PHY 1402	Discussion
0106	Annette Spivy TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 24) SHM 2102 MTH 0407	Discussion
0107	Annette Spivy TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 24) SHM 2102 MTH 0104	Discussion
FC01	Annette Spivy TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 32) SYM 0215	

ENSP305 **Applied Spatial Analysis in Environmental Science and Policy**

(Perm req)

Prerequisite: GEOG373; or permission of Environmental Science and Policy Program. Recommended: ENSP101 and ENSP102. Restriction: Must have earned a minimum of 60 credits; and permission of Environmental Science and Policy program.

Intended for students interested in pursuing career or graduate research opportunities that will include identifying/querying/processing environmental datasets, detailed spatial analysis of environmental data, and applications of predictive environmental modeling. Students will learn necessary skills to analyze and process environmental data through hands-on training in commonly used software and a series of topical case studies. Data analysis and data processing will be taught using publicly available real-world environmental data sets.

0101	Annette Spivy	Seats (Total: 23)
	TuTh 5:00pm - 6:15pm	ANS 0509

ENSP330 **Introduction to Environmental Law**

(Perm req)

Recommended: ENSP101 and ENSP102. Restriction: Junior standing or higher. And must be a major in the Environmental Science and Policy program; or permission of Environmental Science and Policy program.

An overview of environmental law, from its common law roots to its role in the modern regulatory state, including an examination of major federal environment statutes and the policy debates inherent in them. Other areas covered include civil and criminal enforcement, standing to sue, land use control, and regulatory takings.

0101	Joanna Goger	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	PHY 1219

ENSP340 **Water: Science, Ethics, and Policy**

(Perm req)

Recommended: ENSP101 and ENSP102. Restriction: Must have earned a minimum of 60 credits. And must be a major in the Environmental Science and Policy program; or permission of Environmental Science and Policy program.

Exploration of the science, policy, and ethical aspects of water resource protection and management. Focus on water pollution, water availability, ecosystems, and sustainability

0101	Caroline Boules	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	EGR 0135

ENSP360 **Every Drop Counts: Water, Food and Global Public Health**

Prerequisite: ENSP101 or MIEH300; or permission of department. Cross-listed with: MIEH333. Credit only granted for: MIEH333 or ENSP360.

In-depth interdisciplinary study of the public health issues related to water use for global food production. Topics will include accessibility and availability of safe water for agriculture worldwide, potential microbiological and chemical hazards in agricultural water, alternative water sources such as reclaimed wastewater and return flows, food safety approaches to managing agricultural water, and agricultural influences on surface and groundwater quality. Political, social, and economic factors relating to agricultural water will be addressed, with special focus on regions that are leaders in innovative water management and regions where access to clean water for agriculture is a major challenge.

0101	Leena Malayil M 9:00am - 10:30am Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

ENSP386 **Internship**

(Perm req)

Restriction: Must have internship proposal approved by the concentration advisor, the director of ENSP and the student's internship sponsor.

Contact department for information to register for this course.

ENSP399 **Special Topics in Environmental Science and Policy**

(Perm req)

A substantive and specialized examination of contemporary issues in environmental science or policy.

Contact department for information to register for this course.

ENSP399R **Special Topics in Environmental Science and Policy; Research**

(Perm req)

A substantive and specialized examination of contemporary issues in environmental science or policy.

0601	Annette Spivy Contact instructor or department for details.	Seats (Total: 10)
1001	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 10)

ENSP400 **Capstone in Environmental Science and Policy**

(Perm req)

Prerequisite: ENSP101; and ENSP102. Restriction: Must be in Environmental Science and Policy program; and senior standing; and permission of the Environmental Science and Policy Program.

Integration of physical, biological, and social sciences with applications to environmental science and policy. Problem-solving and multi-disciplinary case study evaluations pertinent to contemporary and future issues related to the environment.

0101	Mark Carroll TuTh 12:30pm - 1:45pm	Seats (Total: 35) ESJ 2212	
0102	Mark Carroll, Joanna Goger TuTh 12:30pm - 1:45pm	Seats (Total: 35) ESJ 2212	

ENSP499 **Honors Thesis Research**

Individual research, thesis, and oral defense. The research project will be conducted under the supervision of a faculty member.

Contact department for information to register for this course.

ENST Environmental Science and Technology Fall 2023

ENST200 **Fundamentals of Soil Science**

Corequisite: CHEM131 and CHEM132; or permission of AGNR-Environmental Science & Technology department. Credit only granted for: ENST200 or NRSC200. Formerly: NRSC200.

Study and management of soils as natural bodies, media for plant growth, and ecosystem components. Morphology, composition, formation, and conservation of soils. Chemical, biological, and physical properties are discussed in relation to the production of plants, the functioning of hydrologic and nutrient cycles, the protection of environmental quality, and engineering uses of soils.

0101	Raymond Weil, Eni Baballari TuTh 3:30pm - 4:45pm Tu 5:00pm - 7:50pm	Seats (Total: 22) HJP 0226 HJP 0210	 Lab
0102	Raymond Weil, Eni Baballari TuTh 3:30pm - 4:45pm W 5:00pm - 7:50pm	Seats (Total: 22) HJP 0226 HJP 0210	 Lab
0103	Eni Baballari, Raymond Weil TuTh 3:30pm - 4:45pm Th 5:00pm - 7:50pm	Seats (Total: 22) HJP 0226 HJP 0210	 Lab
0104	Eni Baballari, Raymond Weil TuTh 3:30pm - 4:45pm Tu 9:30am - 12:20pm	Seats (Total: 22) HJP 0226 HJP 0210	 Lab

ENST233 **Introduction to Environmental Health**

Examines how humans are affected by the quality of our air, water, soil and food supply as well as how human activities alter these survival necessities. Students will learn how the evolution and prosperity of human populations have resulted in degradation of our environment and the impact of environmental degradation on the health of people. The implications of individual and collective choices for sustainable food production, population management, and resource utilization will be explored.

0101	Lance Yonkos TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 20) ANS 0408 ANS 0538	 Discussion
0102	Lance Yonkos TuTh 9:30am - 10:45am W 3:00pm - 3:50pm	Seats (Total: 20) ANS 0408 ANS 0538	 Discussion
0103	Lance Yonkos TuTh 9:30am - 10:45am M 4:00pm - 4:50pm	Seats (Total: 20) ANS 0408 ANS 0538	 Discussion
0104	Lance Yonkos TuTh 9:30am - 10:45am W 4:00pm - 4:50pm	Seats (Total: 20) ANS 0408 ANS 0538	 Discussion

ENST281 Computer Aided Design in Ecology

Basics of Computer Aided Drawing (CAD) applied to design of constructed ecosystems. Use of campus stormwater wetland as case study.

0101	Jose-Luis Izursa M 2:00pm - 2:50pm M 3:00pm - 5:00pm	Seats (Total: 20) ANS 0422 ANS 0509	 Lab
0102	Jose-Luis Izursa M 2:00pm - 2:50pm W 3:00pm - 5:00pm	Seats (Total: 20) ANS 0422 ANS 0509	 Lab

ENST282 Ecological Innovation and Entrepreneurship

Ecotechnology innovation is taught with design thinking, which uses an iterative cycle of developing customer empathy, learning ecological technology, appreciating environmental stewardship, brainstorming, rapid prototyping, user experience, testing and redesign. Environment entrepreneurship is based on the Lean Startup process, which uses customer discovery, encourages quick product development, reduces start-up costs, tests ideas quickly, and employs designed experiments. A multidisciplinary academic setting embraces designing, building, testing and marketing novel technologies that enhance the environmental needs of humans. Students will learn in an active environment that requires working creatively, collaboratively, diligently, and precisely to create a business model and tangible prototype for a new commercial product.

0101	David Tilley	Seats (Total: 20)
	MWF 10:00am - 10:50am	ANS 0422

ENST301 **Field Soil Morphology I**

(Perm req)

Restriction: Permission of AGNR-Environmental Science & Technology department. Formerly: ENST308.

This is a field-oriented course that introduces students to the techniques used to (1) describe soil morphology, and site and profile characteristics, (2) make land use interpretations based on soil characteristics, and (3) classify soils. This class is designed to prepare students for the Regional Collegiate Soil Judging Contest and for students to gain experience in the description and interpretation of soils in the field.

0101	Martin Rabenhorst	Seats (Total: 10)
	Contact instructor or department for details.	

ENST302 **Field Soil Morphology II**

(Perm req)

Prerequisite: ENST301. Restriction: Permission of AGNR-Environmental Science & Technology department.

This is the second field-oriented course in a three course sequence that provides intermediate training for students in the techniques used to (1) describe soil morphology, and site and profile characteristics, (2) make land use interpretations based on soil characteristics, and (3) classify soils. This class is designed to prepare students for the Regional Collegiate Soil Judging Contest and for students to gain experience in the description and interpretation of soils in the field.

0101	Martin Rabenhorst	Seats (Total: 7)
	Contact instructor or department for details.	

ENST303 **Field Soil Morphology III**

(Perm req)

Prerequisite: ENST302. Restriction: Permission of AGNR-Environmental Science & Technology department.

This is the third field-oriented course in a three course sequence that provides intermediate training for students in the techniques used to (1) describe soil morphology, and site and profile characteristics, (2) make land use interpretations based on soil characteristics, and (3) classify soils. This class is designed to prepare students for the Regional Collegiate Soil Judging Contest and for students to gain experience in the description and interpretation of soils in the field.

0101	Martin Rabenhorst	Seats (Total: 15)
	Contact instructor or department for details.	

ENST333 **Ecosystem Health and Protection**

Prerequisite: ENST233 or permission of instructor.

Discussion of the philosophies, principles, and practices for assessing ecosystem health with emphasis on an ecosystem perspective rather than a human health perspective. Degradation associated with human activities will be emphasized. Topics will range from local to regional to global issues, including a discussion on global warming and its possible impacts on ecosystems. Concepts will be clarified using case histories from the Chesapeake Bay watershed.

0101	Jennifer Gunnulfsen	Seats (Total: 45)
	TuTh 11:00am - 12:15pm	ANS 0422

ENST360 **Ecosystem Ecology**

Prerequisite: BSCI160 and BSCI161; or BSCI106. Restriction: Must be in the Environmental Science and Technology major; or permission of instructor.

The study of ecology has a long and interesting history, from early society's efforts to understand and alter their environment as a matter of survival to the challenges the modern world is facing that are global in scale. Through the course text, distributed supplemental chapter readings and an understanding of the scientific literature, this course will cover the essential concepts and principles of ecosystem ecology as well as its history and past and present controversies. Several of the basic methods and tools of field research and the applied management of ecosystems will be discussed and demonstrated with several field excursions in the natural environs of the DC area. Central to this course will be the understanding that modern human society is an integral part of nature, with the power to impact and influence elements of the natural world at multiple scales. An analysis of policy implications for the biosphere will be discussed.

The study of ecology has a long and interesting history, from early society's efforts to understand and alter their environment as a matter of survival to the challenges the modern world is facing that are global in scale. Through the course text, distributed supplemental chapter readings and an understanding of the scientific literature, this course will cover the essential concepts and principles of ecosystem ecology as well as its history and past and present controversies. Several of the basic methods and tools of field research and the applied management of ecosystems will be discussed and demonstrated with several field excursions in the natural environs of the DC area. Central to this course will be the understanding that modern human society is an integral part of nature, with the power to impact and influence elements of the natural world at multiple scales. An analysis of policy implications for the biosphere will be discussed.

0101	Sean Sharp TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 20) ANS 0422 ANS 0422	 Discussion
0102	Sean Sharp TuTh 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 20) ANS 0422 ANS 0422	 Discussion

ENST388 **Honors Thesis Research**

(Perm req)

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

Restriction: Permission of AGNR-Environmental Science & Technology department. Repeatable to 6 credits if content differs. Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

Contact department for information to register for this course.

ENST389 **Internship**

(Perm req)

Credit will be granted for practical work carried out by students placed in work environment related to their stated career goals. Students must do an in-depth study in some portion of the work experience and produce a special project or report related to this study. A student work log is also recommended. An evaluation from the external supervisor of the project will be required. Credit arranged with supervising faculty member.

0101	Jose-Luis Izursa Contact instructor or department for details.	Seats (Total: 50)

ENST403 **Invasive Species Ecology**

Credit only granted for: ENST403, ENST603, or ENST689R.

We will examine ecological, evolutionary, and anthropogenic processes facilitating or resisting biological invasions, and consider their environmental, economic, and human health impacts. We will consider various management strategies to mitigate invasions and identify areas of future research. Field trips and detailed discussion of recent findings and controversies in the literature will help illustrate fundamental concepts of invasions among various ecosystems.

0101	Peter May	Seats (Total: 30)
	MWF 10:00am - 10:50am	ANS 0538

ENST411 **Principles of Soil Fertility**

Prerequisite: ENST200; or students who have taken courses with comparable content may contact the department. Jointly offered with ENS T611. Credit only granted for: ENST411 or NRSC411. Formerly: NRS C411.

Soil factors affecting plant growth and quality with emphasis on the bio-availability of mineral nutrients. The management of soil systems to enhance plant growth by means of crop rotations, microbial activities, and use of organic and inorganic amendments.

0101	Raymond Weil	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ANS 1422

ENST414 **Soil Morphology, Genesis and Classification**

Prerequisite: Must have completed or be concurrently enrolled in ENST200.

Processes and factors of soil genesis. Taxonomy of soils of the world by U.S. System. Soil morphological characteristics, composition, classification, survey and field trips to examine and describe soils.

0101	Brian Needelman	Seats (Total: 20)	
	MW 10:00am - 10:50am	PHY 4222	
	M 5:00pm - 5:50pm	HJP 0210	
	M 2:00pm - 5:00pm	HJP 0210	Lab

ENST415 **Renewable Energy**

Prerequisite: CHEM131, PHYS121, and MATH113; or permission of AGNR-Environmental Science & Technology department.

An overview of renewable energy technologies and their current applications. Emphasis will be placed on technological readiness, efficiency and sustainability of renewable energy alternatives. Technologies include solar thermal, photovoltaics, biodiesel, ethanol, anaerobic digestion, wind, hydroelectric, and microbial fuel cells.

0101	Amro Hassanein	Seats (Total: 40)
	MWF 11:00am - 11:50am	ANS 0422

ENST417 **Soil Hydrology and Physics**

Prerequisite: ENST200; and (MATH113 or MATH115).

A study of soil water interactions: the hydrologic cycle; the unique properties of water and soil; the soil components and their interactions; the field water cycle; transport processes involving water, heat and solutes; human effects on soil and groundwater; as well as the measurement, prediction, and control of the physical processes taking place in and through the soil.

0101	Robert Hill TuTh 11:00am - 12:15pm	Seats (Total: 35) EGR 2154

ENST432 **Environmental Microbiology**

Prerequisite: CHEM131 and CHEM132.

Microorganisms are everywhere and mediate many of the processes that we observe everyday. These organisms are the unseen catalysts for numerous industrial processes and are critical to many emerging technologies and novel products. Environmental microbiologists ask: How do microorganisms in the environment benefit society? This course will answer this question by examining microbes in bioremediation, food safety, climate change, and biotechnology.

0101	Stephanie Yarwood TuTh 2:00pm - 3:15pm	Seats (Total: 30) EGR 2116

ENST450 **Wetland Ecology**

(Perm req)

Prerequisite: BIOM301 and ENST360, or equivalent courses in data analysis and ecology; or permission of AGNR-Environmental Science & Technology department. Jointly offered with: ENST650. Credit only granted for: ENST450, ENST650, or MEES650.

Plant and animal communities, biogeochemistry, and ecosystem properties of wetlands. Lectures are supplemented by field trips and in-class labs. Hands-on activities include identification of wetland plant species, wetland delineation, and collection and analysis of field data on wetland vegetation, soil, and hydrology. Wading boots (at least hip length) are strongly recommended.

0101	Andrew Baldwin TuTh 2:00pm - 3:15pm	Seats (Total: 24) ANS 0538

ENST456 **Spatial Analysis and Ecological Sampling**

(Perm req)

Recommended: GEOG306 and GEOG373. Restriction: Senior standing or higher; and permission of instructor. Additional information: Students will need to provide an 8GB (or larger) thumb drive for data storage.

Teaches ENST students ecological sampling methods and applied spatial analysis skills. Students will work in small groups on research projects they develop and test during the semester. Students will develop a research hypothesis, test their hypothesis, display it visually in QGIS, and analyze it with appropriate statistical methods in QGIS and R Studio culminating in a final presentation.

0101	Shannon Browne TuTh 11:00am - 12:15pm	Seats (Total: 20) ANS 0509

ENST460 **Principles of Wildlife Management**

Prerequisite: Must have completed two semesters of biology laboratory; and (ENST360; or BSCI361). Or permission of AGNR-Environmental Science & Technology department.

Ecological principles and requirements of wildlife as basis for management, and introduction to the scientific literature. Conflicts in wildlife management, government administration of wildlife resources, legislation, and history of the wildlife management profession.

0101	Jennifer Mullinax TuTh 12:30pm - 1:45pm	Seats (Total: 40) ANS 0412

ENST472 **Capstone**

(Perm req)

Restriction: Must be in a major within AGNR-Environmental Science & Technology department; and permission of AGNR-Environmental Science & Technology department. Additional information: This is the pinnacle course for students majoring in ENST and is therefore recommended in one of the students' final semesters.

This capstone course focuses on professional project preparation, presentation, and critical evaluation on environmental science research. Students will develop and present original projects and critique projects presented by others.

1201	Andrew Baldwin Contact instructor or department for details.	Seats (Total: 10)
1205	William Bowerman Contact instructor or department for details.	Seats (Total: 15)
1401	Frank Coale Contact instructor or department for details.	Seats (Total: 5)
1501	Gary Felton Contact instructor or department for details.	Seats (Total: 10)
1508	Reginal Harrell Contact instructor or department for details.	Seats (Total: 10)

1601	Robert Hill Contact instructor or department for details.	Seats (Total: 10)
1801	Patrick Kangas Contact instructor or department for details.	Seats (Total: 10)
1802	Stephanie Lansing Contact instructor or department for details.	Seats (Total: 10)
1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 10)
2005	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 10)
2101	Brian Needelman Contact instructor or department for details.	Seats (Total: 10)
2102	Masoud Negahban-Azar Contact instructor or department for details.	Seats (Total: 10)
2103	Mitchell Pavao-Zuckerman Contact instructor or department for details.	Seats (Total: 10)
2104	Shannon Browne Contact instructor or department for details.	Seats (Total: 10)
2105	Wendy Peer Contact instructor or department for details.	Seats (Total: 10)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 10)
2601	David Tilley Contact instructor or department for details.	Seats (Total: 10)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 10)
2804	Jose-Luis Izursa Contact instructor or department for details.	Seats (Total: 10)
2805	Gurpal Toor Contact instructor or department for details.	Seats (Total: 10)

2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 10)
3001	Lance Yonkos Contact instructor or department for details.	Seats (Total: 10)
3201	Peter May Contact instructor or department for details.	Seats (Total: 10)
3202	Candice Duncan Contact instructor or department for details.	Seats (Total: 5)
3301	Adel Shirmohammadi Contact instructor or department for details.	Seats (Total: 4)
3401	Jared Wilmoth Contact instructor or department for details.	Seats (Total: 10)
3601	Henry Gallo Contact instructor or department for details.	Seats (Total: 10)

ENST485 **Water Management in Urban Environment**

Prerequisite: MATH120, MATH130, MATH136, or MATH140.

Historically, with the exception of certain locations, water has been available in sufficient quantities, and providing supporting infrastructure has been relatively straightforward. In urban areas, the concentration of people and the drastic changes in land use, have altered the fluxes of water, sediments, chemicals, and microorganisms. As the population increases and the number of large urban areas keeps growing (both in U.S. and internationally), managing water in urban areas is becoming more challenging. Water must be supplied for domestic, commercial, and industrial use, as well as irrigation and maintaining and enhancing local environments (e.g., urban streams). In addition, stormwater must be managed to prevent flooding and environmental damage, and used water, which contains organic matter, nutrients, and other constituents that can be extracted and reused, must be collected and managed. In this course we take a systems approach to urban water hydrology, engineering, planning and management. We will explore urban water cycle, urban runoff and drainage characteristics, urban water supply and demand, stormwater collection and treatment and designing best management practices. Additionally, we look at the climate impacts on the urban water cycle.

0101	Masoud Negahban-Azar TuTh 12:30pm - 1:45pm	Seats (Total: 40) ANS 0422

ENST486 **Senior Professional Experience**

(Perm req)

Prerequisite: ENST389. Restriction: Must be in the Environmental Science and Technology program; and permission of AGNR-Environmental Science & Technology department. Additional information: The course has two types of activities: lecture and experiential learning. Students are expected to work on their professional-level experience for 90 hours and participate in a 2-hour lecture every other week, during the semester to develop their Senior Integrative Experience (SIE) project. Each student's research question, proposal methodology, analysis, paper, and presentation will follow learning outcomes of all ENST SIE course options.

Students will arrange an off-campus professional-level work experience related to Environmental Science and Technology (ENST) to develop expertise in a specific area of their ENST concentration curriculum. Classroom sessions will frame student experiences within the broader discipline of Environmental Science and Technology. This course will tie together current practices in the ENST career industry, proposal writing, critical analysis, and culminate in a final paper and presentation.

0101	Jose-Luis Izursa F 10:00am - 2:30pm	Seats (Total: 40) Location: TBA

ENST487 **Environmental Conflicts and Decision Making**

Restriction: Senior standing. And must be in one of the following programs (Environmental Sci & Tech: Natural Resources Mgmt; Environmental Sci&Pol-Wildlife Ecology & Mgmt) ; or permission of AGNR-Environmental Science & Technology department.

Study major cases which focus on environmental science with concentration on the role and techniques of negotiation, collaborative decision making, and adaptive resource management as an environmental conflict resolution process.

0101	Jennifer Mullinax W 10:00am - 12:00pm	Seats (Total: 15) ANS 0501

ENST489 **Research Experience**

(Perm req)

An advanced research-based course in the field of environmental science and technology.

Contact department for information to register for this course.

ENST499 **Special Topics in Environmental Science and Technology**

(Perm req)

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

Contact department for information to register for this course.

ENST499E **Special Topics in Environmental Science and Technology; Artificial Intelligence for the Environment**

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

The course is designed to help students that are interested in environmental disciplines understand how the latest generative artificial intelligence (gen-AI) technologies, like Chat GPT-x and othernatural language learning models, can be used to protect and improve ourenvironment and help them discover roles they can pursue as aperson concerned about the environment and as an environmental professional. Through this course, you will gain an appreciation for thepower of gen-AI to make a real difference for our planet. You will explore how the latest gen-AI tools can be applied to tackle environmental topics, like climate change, green cities, ecological restoration, environmentalcompliance and wildlife conservation. This course is perfect for freshmen and sophomores, but is open to all, especially students lookingto explore application for gen-AI.

0101	David Tilley	Seats (Total: 30)
	MWF 1:00pm - 1:50pm	ANS 0538

ENST499K **Special Topics in Environmental Science and Technology; Environmental Science and Technology 101: Ecological Discovery and Natural Solutions**

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

The UMD Environmental Science and Technology Department seeks to develop and apply scientific tools and processes to advance solutions to environmental challenges. But are you curious about exactly what the professors and researchers in the Department study, teach, and share with society? Do you want to learn more about current and future academic and career opportunities in environmental science and technology, both in and beyond our Department? This seminar provides a unique and exciting opportunity for students to learn directly from faculty and other members of the ENST community as they share their discoveries and the solutions they are pursuing to some of the most relevant and important environmental issues we face.

0101	Jennifer Gunnulfsen	Seats (Total: 60)
	M 12:00pm - 12:50pm	ANS 0408

ENST499L **Special Topics in Environmental Science and Technology; Ground Water Use in the Developing World**

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

Overview of ground water as a water resource, its availability, quality and extraction in various developing countries. The role of a consultant in adapting modern technologies to developing ground water as a viable water resource.

0101	Yaron Sternberg	Seats (Total: 40)
	M 12:00pm - 12:50pm	ANS 0422

ENST499T **Special Topics in Environmental Science and Technology; Data Management and Analyses for Environmental Sciences**

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

Cross-listed with ENST689T. Credit only granted for ENST499T or ENST689T. This course is an introduction to data management, analysis, and visualization using the R programming language. Class topics and examples will have an emphasis on problems in environmental science (both natural and social science examples). The course is broken down into three sections: 1. Working with Data, 2. Statistics and Modeling, and 3. Advanced Topics. Classes will consist of short introductions to new concepts followed by hands-on computing exercises using R. No background in programming isrequired. Students are encouraged to bring their own laptop, either Mac or PC, to this course.

0101	Henry Gallo	Seats (Total: 23)
	TuTh 3:30pm - 4:45pm	ANS 0509

ENST499U **Special Topics in Environmental Science and Technology; Environmental Sample Preparation and Analysis**

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

This has been designed to teach the theories, principles and methods of analyzing environmental contaminants in a given media utilizing various instruments Gas Chromatography(GC) - Mass Spectrometry (MS), Electron Capture Detection (ECD), Flame Ionization Detection (FID), High PressureLiquid Chromatography (HPLC), Ultra Violet-Visible (UV-Vis) and Ion Chromatography (IC) and analytical techniques Solid Phase Extraction (SPE), Thin Layer Chromatography (TLC), Accelerated Solvent Extraction (ASE) . The course will include sample preparation methods to detect environmental contaminants at known and unknown concentrations invarious media (soil, water, and air). This will include laboratory and homework assignments to assess student understanding of course material.

0101	Candice Duncan	Seats (Total: 15)
	TuTh 9:30am - 10:45am	ANS 0422

ENST499X **Special Topics in Environmental Science and Technology; Soil Science**

(Perm req)

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

Contact department for information to regsiter for this course.

0101	Raymond Weil Contact instructor or department for details.	Seats (Total: 5)

ENST499Y **Special Topics in Environmental Science and Technology; College Teaching**

(Perm req)

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

0101	Raymond Weil Contact instructor or department for details.	Seats (Total: 2)
1201	Andrew Baldwin Contact instructor or department for details.	Seats (Total: 2)
1508	Reginal Harrell Contact instructor or department for details.	Seats (Total: 2)
2104	Shannon Browne Contact instructor or department for details.	Seats (Total: 2)
2106	Eni Baballari Contact instructor or department for details.	Seats (Total: 2)
2804	Jose-Luis Izursa Contact instructor or department for details.	Seats (Total: 2)
3201	Peter May Contact instructor or department for details.	Seats (Total: 2)

ENST602 **Research Principles and Methodology in Environmental Scienceand Technolgy**

(Perm req)

Restriction: Must be in Environmental Sci & Tech program.

Fundamental research strategies and methods of investigation in Environmental Science and Technology including field and laboratory procedures.

0101	Jennifer Mullinax TuTh 11:00am - 12:15pm	Seats (Total: 15) ANS 1422

ENST603 **Advanced Invasive Species Ecology**

Jointly offered with ENST403. Credit only granted for: ENST403, ENST603 , or ENST689R. Formerly: ENST689R. Additional information: Two field trips are planned for this class.

We will examine ecological, evolutionary, and anthropogenic processes facilitating or resisting biological invasions, and consider their environmental, economic, and human health impacts. We will consider various management strategies to mitigate invasions and identify areas of future research. Field trips and detailed discussion of recent findings and controversies in the literature will help illustrate fundamental concepts of invasions among various ecosystems.

0101	Peter May	Seats (Total: 5)	
	MWF 10:00am - 10:50am	ANS 0538	
	F 11:00am - 11:50am	ANS 0538	Discussion

ENST606 **Advanced Ecosystem Health and Natural Resource Management**

(Perm req)

Restriction: Permission of AGNR-Environmental Science & Technology department. Credit only granted for: ENST606 or ENST689E. Formerly: ENST689E. Additional information: Priority in enrollment will be given to students in ENST program.

Explore some of the most important and current global environmental and health challenges. Investigate fundamental and new concepts from the fields of ecology, eco-epidemiology, social anthropology, and environmental and health policy, as well as interdisciplinary cross-sectorial approaches such as One Health, Eco-Health, and Planetary Health.

0101	Paul Leisnham	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ANS 1420

ENST608 **Research Methods**

(Perm req)

Development of research viewpoint by detailed study and report on crop and soil research of the Maryland Agriculture Experiment Station or review and discussion of literature on specific agricultural problems or new research techniques.

Contact department for information to register for this course.

ENST611 **Advanced Principles of Soil Fertility**

Prerequisite: ENST200; or students who have taken courses with comparable content may contact the department. Jointly offered with: ENST411. Credit only granted for: ENST411 or ENST611.

Soil factors affecting plant growth and quality with emphasis on the bio-availability of mineral nutrients. The management of soil systems to enhance plant growth by means of crop rotations, microbial activities, and use of organic and inorganic amendments.

0101	Raymond Weil	Seats (Total: 10)
	TuTh 12:30pm - 1:45pm	ANS 1422

ENST650 **Advanced Wetland Ecology**

Prerequisite: BIOM301; and ENST360 or other ecology equivalent; or permission of AGNR-Environmental Science and Technology department; or permission of CMNS-Marine & Estuarine-Environmental Science Program). Cross-listed with: MEES650. Jointly offered with: ENST450, MEES650. Credit only granted for: ENST450, ENST650, or MEES650. Additional information: Wading boots (at least hip length) are strongly recommended.

Plant and animal communities, biogeochemistry, and ecosystem properties of wetlands. Lectures are supplemented by field trips (normally 2 days total during the semester) and in-class labs. Hands-on activities and exercises include identification of wetland plant species, wetland mapping and delineation, and collection and analysis of field data on wetland vegetation, soil, and hydrology. Wading boots (at least hip length) are strongly recommended.

0101	Andrew Baldwin TuTh 2:00pm - 3:15pm	Seats (Total: 5) ANS 0538

ENST689 **Special Topics**

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

1201	Andrew Baldwin Contact instructor or department for details.	Seats (Total: 5)
1205	William Bowerman Contact instructor or department for details.	Seats (Total: 5)
1401	Frank Coale Contact instructor or department for details.	Seats (Total: 5)
1501	Gary Felton Contact instructor or department for details.	Seats (Total: 5)
1508	Reginal Harrell Contact instructor or department for details.	Seats (Total: 5)
1601	Robert Hill Contact instructor or department for details.	Seats (Total: 5)
1801	Patrick Kangas Contact instructor or department for details.	Seats (Total: 5)
1802	Stephanie Lansing Contact instructor or department for details.	Seats (Total: 5)

1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 5)
1805	Michael Kearney Contact instructor or department for details.	Seats (Total: 5)
2001	Bahram Momen Contact instructor or department for details.	Seats (Total: 5)
2005	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 5)
2101	Brian Needelman Contact instructor or department for details.	Seats (Total: 5)
2102	Masoud Negahban-Azar Contact instructor or department for details.	Seats (Total: 5)
2103	Mitchell Pavao-Zuckerman Contact instructor or department for details.	Seats (Total: 5)
2105	Wendy Peer Contact instructor or department for details.	Seats (Total: 5)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 3)
2601	David Tilley Contact instructor or department for details.	Seats (Total: 5)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 5)
2805	Gurpal Toor Contact instructor or department for details.	Seats (Total: 5)
2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 5)
3001	Lance Yonkos Contact instructor or department for details.	Seats (Total: 2)
3401	Jared Wilmoth Contact instructor or department for details.	Seats (Total: 10)

3601	Henry Gallo	Seats (Total: 10)
	Contact instructor or department for details.	

ENST689M **Special Topics; Advanced Soil Chemistry**

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

Advanced examination of modern and emerging topics in Soil Chemistry. The course will focus on the most current ideas and cutting-edge techniques to understand how key soil chemical mechanisms and pathways are linked to large-scale phenomena such as climate change, food security, sustainability, nutrient cycling, and pollution.

0101	Jared Wilmoth	Seats (Total: 10)
	TuTh 9:30am - 10:45am	ANS 1422

ENST689T **Special Topics; Data Management and Analyses for Environmental Sciences**

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

Cross-listed with ENST499T. Credit only granted for ENST499T or ENST689T. This course is an introduction to data management, analysis, and visualization using the R programming language. Class topics and examples will have an emphasis on problems in environmental science (both natural and social science examples). The course is broken down into three sections: 1. Working with Data, 2. Statistics and Modeling, and 3. Advanced Topics. Classes will consist of short introductions to new concepts followed by hands-on computing exercises using R. No background in programming isrequired. Students are encouraged to bring their own laptop, either Mac or PC, to this course.

0101	Henry Gallo	Seats (Total: 23)
	TuTh 3:30pm - 4:45pm	ANS 0509

ENST689X **Special Topics; Methods in University Teaching**

(Perm req)

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

0101	Raymond Weil	Seats (Total: 1)
	Contact instructor or department for details.	

ENST689Y **Special Topics; Advances in Research, Plant Membrane Biology**

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

0101	Wendy Peer	Seats (Total: 10)
	Contact instructor or department for details.	

ENST689Z **Special Topics; Introductory University Instruction**

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

2905	Stephanie Yarwood	Seats (Total: 1)
	Contact instructor or department for details.	

ENST789 **Advances in Research**

A study of recent advances in agronomy research.

Contact department for information to register for this course.

ENST798 **Graduate Seminar**

(Perm req)

Designed to provide a venue for interactive discussion between ENST graduate students and other members of the ENST community regarding thesis/dissertation research planned or conducted as part of the students graduate program.

Restriction: Must be in one of the following programs (Environmental Science and Technology (Doctoral); Environmental Science and Technology (Master's)); or permission of AGNR-Environmental Science & Technology department.

0101	Jared Wilmoth, Martin Rabenhorst	Seats (Total: 40)
	W 3:00pm - 3:50pm	ANS 0408

ENST799 **Master's Thesis Research**
Contact department for information to register for this course.

ENST898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENST899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENTM Entomology Fall 2023

ENTM699K **Advanced Entomology; Biological Sciences Teaching and Learning in Higher Education**

(Perm req)

Credit and prerequisites to be determined by the department. First and second semesters. Studies of minor problems in morphology, physiology, taxonomy and applied entomology, with particular reference to the preparation of the student for individual research.

Cross-listed with BIOL608K, CBMG699K, and CHEM608K. Credit will be grant edfor only one of the following: BIOL608K, CBMG699K, CHEM608K, or ENTM699K.

0101	Gili Ad-Marbach W 11:00am - 12:40pm	Seats (Total: 12) BPS 1208

ENTM701 **Teaching & Professional Development in Biology**

(Perm req)

Cross-listed with: BISI701. Credit only granted for: ENTM701, BISI688Z, CBMG688Z, or BIOL701. Formerly: BISI688Z, CBMG688Z, BIOL701. Additional information: Priority enrollment will be given to students in the BISI Graduate Program.

Provides graduate students in the biological sciences with the foundational knowledge to become better teaching assistants and gives them an introduction into the skills and tools that they need to develop as professional scientists and educators.

0101	Wade Winkler Tu 6:00pm - 8:00pm	Seats (Total: 20) ATL 2416
0201	Leslie Pick Tu 6:00pm - 8:00pm	Seats (Total: 20) PLS 4102

ENTM710 **Insect Biodiversity, Physiology and Ecology**

A survey course discussing the various families of insects, discuss thing their anatomy and physiology, and their role in ecological systems. Students will examine the ecological and evolutionary perspectives on interactions between plants and vertebrate and invertebrate animals. Further, it explores the applied consequences of animal-plant interactions to agroecology and conservation biology. These goals are achieved by reviewing the theoretical underpinnings of animal-plant interactions, and exposing students to research literature on animal-plant interactions.

Click here for program information.

PLE1	Marcia Shofner **Meets August 28, 2023 - November 17, 2023** Class time/details on ELMs *Must be in Graduate Programs in Applied Entomology. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.*	Seats (Total: 8) ONLINE

ENTM756 **Insect Diseases and Pathology**

Credit only granted for: ENTM715 or ENTM756. Formerly: ENTM715.

Integrates aspects of biochemistry, molecular biology and evolution theory with ecology using pathogens of insects as a model. The various biotic (living) and abiotic (nonliving) factors that can contribute to plant problems. Explores the direction and goals of innovation in microbial biocontrol as well as the effect of social criticism and considerations of environmental impact on attempts to introduce engineered microorganisms.

Click here for program information.

PLE1	Huiyu Sheng	Seats (Total: 8)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Applied Entomology. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

ENTM769 **Capstone: Scholarly Paper**

An examination of the current literature on topics related to the field of applied entomology. The Capstone Course provides the opportunity to apply and integrate best practices based on current research in the form of a formal scholarly paper.

PLE1	Cerruti Hooks	Seats (Total: 2)
	Meets August 28, 2023 - November 17, 2023	
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Applied Entomology. All other graduate students must request permission. Contact oes@umd.edu.	

ENTM788C **Entomological Topics; Colloquium**

One lecture or one two-hour laboratory period a week for each credit hour. Lectures, group discussions or laboratory sessions on selected topics such as: aquatic insects, biological control of insects, entomological literature, forest entomology, history of entomology, insect biochemistry, insect embryology, immature insects, insect behavior, insect communication, principles of entomological research.

0101	Niranjana Krishnan	Seats (Total: 45)	
	F 12:00pm - 12:50pm	PLS 1130	
	F 1:00pm - 1:50pm	PLS 4102	Discussion

ENTM798K **Topic Seminar; Challenges and Prospects for Sustainability in Agriculture**

(Perm req)

Discussion and presentation of current research and literature.

Restriction: Must be in ENTM grad program; or permission of the instructor.

0101	Bill Lamp Contact instructor or department for details.	Seats (Total: 12)	

ENTM798R **Topic Seminar; Introduction to Statistics and R Programming**

(Perm req)

Discussion and presentation of current research and literature.

0101	Daniel Gruner, Anthony Nearman Contact instructor or department for details.	Seats (Total: 15)	

ENTM799 **Master's Thesis Research**
Contact department for information to register for this course.

ENTM898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENTM899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENTS Telecommunications Fall 2023

ENTS622 **Introduction to Digital Communication Systems**

Restriction: Must be in Telecommunications (Master's) program; or permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: ENTS622 or ENTS689B. Formerly: ENTS689B.

Principles of analog and digital communication systems design. Analysis of the performance and relative merits of different modulation and demodulation, signal processing, filtering and error control schemes in communication systems. Also provides an understanding of the design of modern digital communication systems.

0101	Alejandra Mercado M 9:00am - 11:45am Tu 9:00am - 10:30am Tu 10:30am - 11:45am	Seats (Total: 16) JMP 1109 AVW 1362 AVW 1458	 Lab Discussion
0102	Alejandra Mercado M 9:00am - 11:45am Th 9:00am - 10:30am Th 10:30am - 11:45am	Seats (Total: 16) JMP 1109 AVW 1362 AVW 1458	 Lab Discussion

ENTS630 **The Economics of International Telecommunications**

Restriction: Must be in Telecommunications (Master's) program.

Basic microeconomic principles used by telecommunications firms, including supply and demand, elasticity, costs, productivity, pricing, market structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

Restricted to ENTS majors. All non-major students will need to obtain department permission.

0101	Joseph Augustine	Seats (Total: 35)	
	W 2:00pm - 4:45pm	WDS 1114	

ENTS635 **Decision Support Methods for Telecommunication Managers**

Restriction: Must be in Telecommunications (Master's) program.

The aim of this course is to introduce management science techniques for informed decision making. Topics covered can include data analysis and regression, optimization models and applications (workforce scheduling, manufacturing, network design, facility location), sensitivity analysis, decision trees, risk analysis and business simulation models. Emphasis will be on telecommunications managerial problems, model development and the use of software packages for decision support.

Restricted to ENTS majors. All non-major students will need to obtain department permission. Click here for more course information.

0101	Kazim Ruhi	Seats (Total: 40)	
	M 5:30pm - 8:15pm	SQH 1117	

ENTS640 **Networks and Protocols I**

Restriction: Must be in Telecommunications (Master's) program.

An overview of design issues and the important industry standards for digital communications networks. This includes protocols, data communications technologies, error correction and detection, congestion control, traffic routing, Local Area Network (LAN) protocols, TCP/IP, and some security issues.

0101	Zoltan Safar	Seats (Total: 24)	
	F 5:30pm - 8:15pm	CSI 2118	
	Th 5:30pm - 8:15pm	AVW 1442	Lab

ENTS656 **Introduction to Cellular Communication Networks**

Concepts and techniques involved in wireless digital communications with emphasis on cellular and PCS systems. Properties of Mobile radio channels; intersymbol interference, multipath, and fading effects; interleaving and diversity; multiple access schemes (TDMA, FDMA, CDMA); interuser interference, traffic issues, and cell capacity; power control strategies; frequency reuse and channel assignment; handoff, paging, and location update; cell layout; introduction to cellular and PCS standards.

Click here for more course information.

0101	Michael Dellomo Tu 5:30pm - 8:15pm M 2:00pm - 4:45pm	Seats (Total: 24) MTH 0102 AVW 1458	 Lab

ENTS657 **Satellite Communication Systems**

Credit only granted for: ENTS657 or ENTS689S. Formerly: ENTS689S.

An examination of satellite telecommunication systems with an emphasis on the mobile satellite systems (MSS). Topics will include a historical perspective, orbital mechanics and constellations, choice of orbital parameters, propagations considerations, link budgets, interference issues and other obstacles, and existing and proposed mobile satellite systems. It will also look at some of the business aspects such as the cost of deploying and maintaining these systems.

0101	Michael Dellomo W 5:30pm - 8:15pm	Seats (Total: 30) MTH 0401

ENTS669B **Special Topics in Computing; Distributed Systems in a Virtual Environment**

Selected topics of current importance in computing.

Please click here for more course information.

0101	Jeff McKinney Tu 5:30pm - 8:15pm	Seats (Total: 18) AVW 1442

ENTS669D **Special Topics in Computing; Foundations of Machine Learning**

(Perm req)

Selected topics of current importance in computing.

0101	Sanghamitra Dutta MW 12:30pm - 1:45pm	Seats (Total: 30) EGR 2154

ENTS699M **Independent Study in Telecommunications; Python Programming**

Individual instruction course. See ENTS program office for section number.

0101	Michael Dellomo Contact instructor or department for details.	Seats (Total: 10)

ENTS699T **Independent Study in Telecommunications; Distributed Antenna Systems**

(Perm req)

Individual instruction course. See ENTS program office for section number.

0101	Rikin Thakker	Seats (Total: 5)	
	Contact instructor or department for details.		

ENTS759D **Advanced Topics in Communications; Distributed Antenna Systems (DAS) and Small Cells**

Selected advanced topics in communications.

Prerequisites: ENTS656 or ENTS653.

0101	Rikin Thakker	Seats (Total: 30)	
	F 5:30pm - 8:15pm	EGR 2116	

ENTS759I **Advanced Topics in Communications; Selected Topics in 5G System Design and Evolution**

Selected advanced topics in communications.

0101	Kamran Etemad	Seats (Total: 24)	
	M 1:00pm - 3:45pm	EGR 1102	

EPIB Epidemiology and Biostatistics Fall 2023

EPIB301 **Epidemiology for Public Health Practice**

Restriction: Must be in Public Health Science program; or must be in Community Health program. And must have earned a minimum of 45 credits.

An examination of the discipline of epidemiology and its application to public health issues and practices, covering current epidemiological concepts and methods.

As agreed to during the change of major workshop or orientation to PHSC: PHSC students who declared their major BEFORE the spring 2018 semester are required to take EPIB300 before EPIB301. PHSC students who declared their major DURING the spring 2018 semester and later, are required to take EPIB315 before EPIB315.

0101	Typhanye Dyer	Seats (Total: 23)		
	TuTh 3:30pm - 4:20pm	ESJ 0202		
	M 9:00am - 9:50am	ATL 1434	Discussion	
	Restricted to Public Health Science majors at College Park.			
0102	Typhanye Dyer	Seats (Total: 23)		
	TuTh 3:30pm - 4:20pm	ESJ 0202		
	M 10:00am - 10:50am	ATL 1434	Discussion	
	Restricted to Public Health Science majors at College Park.			

0103	Typhanye Dyer TuTh 3:30pm - 4:20pm M 11:00am - 11:50am	Seats (Total: 23) ESJ 0202 ATL 1434	Discussion
	Restricted to Public Health Science majors at College Park.		
0104	Typhanye Dyer TuTh 3:30pm - 4:20pm M 12:00pm - 12:50pm	Seats (Total: 23) ESJ 0202 ATL 1434	Discussion
	Restricted to Public Health Science majors at College Park.		
0105	Typhanye Dyer TuTh 3:30pm - 4:20pm M 1:00pm - 1:50pm	Seats (Total: 23) ESJ 0202 ATL 1434	Discussion
	Restricted to Public Health Science majors at College Park.		
0106	Typhanye Dyer TuTh 3:30pm - 4:20pm M 2:00pm - 2:50pm	Seats (Total: 23) ESJ 0202 ATL 1434	Discussion
	Restricted to Public Health Science majors at College Park.		
0107	Typhanye Dyer TuTh 3:30pm - 4:20pm M 3:00pm - 3:50pm	Seats (Total: 23) ESJ 0202 ATL 1434	Discussion
	Restricted to Public Health Science majors at College Park.		
0201	Typhanye Dyer TuTh 3:30pm - 4:20pm M 9:00am - 9:50am	Seats (Total: 20) ESJ 0202 Location: TBA	Discussion
	Restricted to College Park students in the Behavioral and Community Health major.		
0202	Typhanye Dyer TuTh 3:30pm - 4:20pm W 1:00pm - 1:50pm	Seats (Total: 20) ESJ 0202 SPH 0307	Discussion
	Restricted to College Park students in the Behavioral and Community Health major.		

EPIB301H **Epidemiology for Public Health Practice**

(Perm req)

Restriction: Must be in Public Health Science program; or must be in Community Health program. And must have earned a minimum of 45 credits.

An examination of the discipline of epidemiology and its application to public health issues and practices, covering current epidemiological concepts and methods.

0201	Typhanye Dyer TuTh 3:30pm - 4:20pm M 9:00am - 9:50am	Seats (Total: 3) ESJ 0202 SPH 0307	 Discussion
0202	Typhanye Dyer TuTh 3:30pm - 4:20pm W 1:00pm - 1:50pm	Seats (Total: 3) ESJ 0202 SPH 0307	 Discussion

EPIB315 **Biostatistics for Public Health Practice**

Prerequisite: Minimum grade of C- in EPIB301; or must have completed or be concurrently enrolled in HLTH200. Restriction: Must be in one of the following programs (Public Health Science; Community Health). Credit only granted for: EPIB300 or EPIB315. Formerly: EPIB300. Additional information: Course is cross-listed; students should check program advising information to determine which counts for their major. Note that EPIB300 (old number) is still offered for students under previous curriculum.

An examination of biostatistical concepts and procedures as they relate to contemporary issues in public health. Focus on applications, hands-on-experience, and interpretations of statistical findings in public health research.

As agreed to during the change of major workshop or orientation to PHSC: PHSC students who declared their major BEFORE the spring 2018 semester are required to take EPIB300 before EPIB301. PHSC students who declared their major DURING the spring 2018 semester and later, are required to take EPIB301 before EPIB315.

0101	Yan Li TuTh 11:00am - 11:50am M 8:00am - 9:50am *Restricted to College Park students in the Public Health Science major.*	Seats (Total: 10) ESJ 2208 SPH 0116B	 Discussion
0102	Yan Li TuTh 11:00am - 11:50am M 10:00am - 11:50am *Restricted to College Park students in the Public Health Science major.*	Seats (Total: 20) ESJ 2208 SPH 0116B	 Discussion
0103	Yan Li TuTh 11:00am - 11:50am M 12:00pm - 1:50pm *Restricted to College Park students in the Public Health Science major.*	Seats (Total: 20) ESJ 2208 SPH 0116B	 Discussion

0104	Yan Li	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 2:00pm - 3:50pm	ESJ 2208 SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0105	Yan Li	Seats (Total: 10)	
	TuTh 11:00am - 11:50am F 8:00am - 9:50am	ESJ 2208 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major.		
0106	Yan Li	Seats (Total: 15)	
	TuTh 11:00am - 11:50am F 10:00am - 11:50am	ESJ 2208 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major.		
0107	Yan Li	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 12:00pm - 1:50pm	ESJ 2208 SPH 0303	Discussion
	Restricted to College Park students in the Public Health Science major.		
0108	Yan Li	Seats (Total: 10)	
	TuTh 11:00am - 11:50am F 2:00pm - 3:50pm	ESJ 2208 SPH 0303	Discussion
	Restricted to College Park students in the Public Health Science major.		
0201	Yan Li	Seats (Total: 15)	
	TuTh 11:00am - 11:50am Th 4:00pm - 5:50pm	ESJ 2208 SPH 0121	Discussion
	Restricted to students in the Behavioral and Community Health major.		
0202	Yan Li	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 12:00pm - 1:50pm	ESJ 2208 SPH 0121	Discussion
	Restricted to students in the Behavioral and Community Health major.		
ESG1	Lauren Kauffman	Seats (Total: 35)	
	Tu 1:00pm - 3:30pm Class time/details on ELMs	BLD3 4211 ONLINE	Discussion
	Restricted to Shady Grove students in the Public Health Science major.		

EPIB399 Epidemiology and Biostatistics Independent Study

The EPIB undergraduate independent study is an opportunity for undergraduates from other departments in the SPH or the university to work with an Epidemiology and Biostatistics faculty member on research or special projects that are based out of EPIB.

Contact department for information to register for this course.

EPIB612 **Epidemiologic Study Design**

(Perm req)

Prerequisite: EPIB611.

Application of epidemiologic study designs, analytic methods used for analysis of cohort, case-control, cross-sectional, and clinical trials research.

0101	Edmond Shenassa M 4:00pm - 6:45pm	Seats (Total: 20) ATL 1434

EPIB642 **Obesity Epidemiology: Hormones and Cancer**

(Perm req)

Prerequisite: Students must have completed either SPHL602 or EPIB610 Foundations of Epidemiology (or equivalent). BS/MPH students who have completed EPIB301 may enroll. Students from other departments must request departmental permission to register.

This course provides an overview of the epidemiology, prevention and treatment of obesity with a focus on associations with cancer and hormonal mechanisms. This course will integrate public health disciplines including epidemiological methods, molecular biology, behavior and clinical science to discuss the causes and consequences of obesity, particularly cancer.

0101	Cher Dallal W 1:00pm - 3:45pm	Seats (Total: 20) EGR 1102

EPIB651 **Applied Regression Analysis**

(Perm req)

Prerequisite: 1 course with a minimum grade of B- from (SPHL602, EPIB650); or a minimum score of 70% on the SPHL602 or EPIB650 waiver exam. Recommended: EPIB697 or previous experience working with SAS is highly recommended.

An introduction to important statistical methods used in public health research, including nonparametric hypothesis testing, ANOVA, simple and multiple linear regression, logistic regression, and categorical data analysis.

0101	Menglu Liang Th 1:00pm - 3:45pm	Seats (Total: 20) ATL 1434

EPIB652 **Categorical Data Analysis**

(Perm req)

Prerequisite: EPIB651. Recommended: EPIB697 or previous experience working with SAS is highly recommended.

Methods for analysis of categorical data as applied to public health research, including contingency tables, logistic regression, multicategory logic models, loglinear models, and models for matched-pairs.

0101	Tianzhou Ma W 4:15pm - 7:00pm	Seats (Total: 20) ATL 1434

EPIB655 **Longitudinal Data Analysis**

(Perm req)

Prerequisite: EPIB651.

Statistical models for drawing scientific inferences from longitudinal data, longitudinal study design, repeated measures and random effects to account for experimental designs that involve correlated responses, handling of missing data.

0101	Xin He Tu 1:00pm - 3:45pm	Seats (Total: 20) ATL 1434

EPIB697 **Public Health Data Management**

(Perm req)

Prerequisite: Permission of instructor.

This course is designed to provide students with the expertise needed to effectively manage research data using SAS as the statistical programming language.

0101	Menglu Liang Tu 4:00pm - 6:45pm	Seats (Total: 25) ATL 1434
PLY1	Menglu Liang Class time/details on ELMs	Seats (Total: 10) ONLINE
	Must be in Health Data Analysis (GC). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

EPIB778 **Practical Experience in Public Health**

(Perm req)

Practice experience providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the practice experience will depend upon the student's background and career goals.

Contact department for information to register for this course.

EPIB786 **Capstone Project in Public Health**

(Perm req)

Prerequisite: Permission of SPHL-Epidemiology & Biostatistics department.

Capstone experience providing opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

EPIB788 **Critical Readings in Epidemiology and Biostatistics**

(Perm req)

Open to master and doctoral students to discuss critical readings in Epidemiology and Biostatistics.

0101	Amir Sapkota	Seats (Total: 15)
	W 10:00am - 12:00pm	ATL 1425

EPIB798 **Independent Study**

(Perm req)

Master or doctoral students who desire to pursue special research problems under the direction of a faculty memeber of the department may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

EPIB799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

EPIB898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

EPIB899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

FGSM Federal and Global Fellows Fall 2023

FGSM310 **Political Engagement and Advocacy**

(Perm req)

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: HNUH318T. Credit only granted for: HNUH318T or FGSM310.

An examination of questions and issues in the practice of political engagement and advocacy. Guest lecturers drawn from political, civic engagement, and advocacy arenas will visit class and participate in discussions.

0101	Peter Owen M 6:00pm - 9:00pm	Seats (Total: 24) AJC 2119

FGSM315 **Civic Leadership and Human Services**

(Perm req)

Restriction: Must be in the Maryland Fellows Program; and Permission of Department. Cross-listed with: HNUH319T.

An examination of important issues, methodologies and tools of civic leadership in relation to human services, especially at the state and local level.

0101	Emily Shetty Tu 5:30pm - 8:30pm	Seats (Total: 23) IRB 1207

FGSM320 **Public Health Policy**

(Perm req)

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: HNUH328T. Credit only granted for: UNIV348P, HNUH328T or FGSM320. Formerly: UNIV348P.

An exploration of the major questions and issues facing the U.S. health care system as well as the formulation and implementation of health policy.

0101	Woodie Kessel Tu 3:30pm - 6:30pm	Seats (Total: 25) ESJ 1309

FGSM330 **Homeland and National Security Policy**

(Perm req)

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: HNUH338T. Credit only granted for: UNIV348T, HNUH338T or FGSM330. Formerly: UNIV348T.

An examination of the concept of U.S. homeland and national security, threats, and major vulnerabilities in the context of recent history.

0101	Andrew Fausett, Casie Antalis M 6:00pm - 9:00pm	Seats (Total: 21) AJC 2134

FGSM340 **Energy and Environmental Policy**

(Perm req)

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: HNUH348T. Credit only granted for: UNIV348E, HNUH348T or FGSM340. Formerly: UNIV348E.

An examination of issues of energy and environmental sustainability through an investigation of policy-making in energy, climate change, and sustainable development.

0101	Ed Fendley M 3:00pm - 6:00pm	Seats (Total: 23) ESJ B0320

FGSM350 **Critical Regions and International Relations**

(Perm req)

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: HNUH358T. Credit only granted for: HNUH358T or FGSM350.

An examination of international relations and foreign policy challenges in critical regions.

0101	Danusia Hubah, Eric Ciaramella Th 7:00pm - 10:00pm	Seats (Total: 23) AJC 2119

FGSM355 **International Security and Intelligence**

(Perm req)

Restriction: Must be in the Global Fellows Program; and Permission of Department. Cross-listed with: HNUH359T.

Examines the role of intelligence in supporting U.S. security strategy and policy. Students will learn how the U.S. Intelligence Community (IC) is structured and organized, and will explore how intelligence is deployed to support the warfighter, diplomats, and senior-level decisionmakers. The course emphasizes the development of critical thinking and analytic skills, as well as professional writing and oral presentation abilities that are necessary for successful work in national security organizations. The course will feature guest lecturers from real-world practitioners to supplement course readings.

0101	Paul Maykish, William Usher Th 7:00pm - 10:00pm	Seats (Total: 23) ESJ 0215

FGSM360 **U.S. Diplomacy and Policymaking**

(Perm req)

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: HNUH368T. Credit only granted for: HNIUH368T or FGSM360.

An examination of questions and issues in the practice of contemporary diplomacy and policy-making. Guest lecturers drawn from Washington policy-making and foreign service communities will visit class and participate in discussion.

0101	Nadia Farra Tu 6:30pm - 9:30pm	Seats (Total: 23) ESJ 1309

FGSM365 **Economic Diplomacy: Challenges and Opportunities**

(Perm req)

Restriction: Must be in the Global Fellows Program; AND Permission of Department. Cross-listed with: HNUH369T. Credit only granted for: FGSM365 or HNUH369T.

An examination of political, social, and environmental aspects of the global economy in the context of power competition and technological change.

0101	Andrew Nissen	Seats (Total: 24)
	M 6:00pm - 9:00pm	HJP 2242

FGSM370 **Science Diplomacy: Foreign Policy & Science, Technology, and Innovation**

(Perm req)

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: HNUH378T. Credit only granted for: UNIV389F, HNUH378T or FGSM370. Formerly: UNIV389F.

An exploration of the critical roles scientific knowledge and technological innovation play in the formation and implementation of foreign policy issues, including energy and climate change, public health, space and innovation, and economic development.

0101	Jonathan Margolis, Jeffrey Haeni	Seats (Total: 24)
	W 5:30pm - 8:30pm	AJC 2119

FGSM380 **Responses to Global Challenges**

(Perm req)

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: HNUH388T. Credit only granted for: UNIV389B, HNUH388T or FGSM380. Formerly: UNIV389B.

An examination of global issues and responses primarily from the perspective of the practitioner. The focus will be on social, humanitarian, and human rights issues in different global contexts.

0101	Rhoda Margesson	Seats (Total: 25)
	W 5:30pm - 8:30pm	HJP 2242

FGSM390 **Global Health Challenges and Water Security**

(Perm req)

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: HNUH398T. Credit only granted for: HNUH398T, HONR378M, or FGSM390.

An examination of questions and issues of global health and water security. Expert practitioners will also visit class and participate in discussions.

0101	Julien Katchinoff, Jonathan Margolis W 3:00pm - 6:00pm	Seats (Total: 24) AJC 2132

FGSM398 **Federal and Global Experiential Learning**

(Perm req)

This is the experiential course component of the Federal Fellows Program and Global Fellows Program.

Cross-listed with HNUH398P. Credit only granted for FGSM398 or HNUH398P.

0101	Joan Burton, Jayakumar Arasan Class time/details on ELMs	Seats (Total: 25) ONLINE
0201	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE

FIRE First-Year Innovation & Research Experience Fall 2023

FIRE120 **FIRE SEMESTER 1**

Additional information: This is the first course in the FIRE (First-Year Innovation & Research Experience) program sequence.

Engages the research process through the design, research, collaborative authorship and iterative review-based refinement of research proposals. Students find and analyze primary literature, think creatively, author and communicate research proposals in a scholarly fashion and work collaboratively to solve scientific and societal problems using technology, delegation and productive team communication.

0101	Catherine Spirito M 12:00pm - 12:50pm Contact instructor or department for details. *This section is restricted to BioFIRE students.*	Seats (Total: 40) ATL 2339
0102	Quira Zeidan M 1:00pm - 1:50pm Contact instructor or department for details. *This section is restricted to BioFIRE students.*	Seats (Total: 40) ATL 2339
0103	Jessica O'Hara M 11:00am - 11:50am Contact instructor or department for details. *This section is hosted by the FIRE Natural Science cluster.*	Seats (Total: 38) ATL 2339

0104	Danielle Niu F 1:00pm - 1:50pm Contact instructor or department for details. *This section is hosted by the FIRE Natural Science cluster.*	Seats (Total: 38) ATL 2339
0105	Cherisse Hall F 12:00pm - 12:50pm Contact instructor or department for details. *This section is hosted by the FIRE Natural Science cluster.*	Seats (Total: 38) ATL 2339
0106	Robert Young F 9:00am - 9:50am Contact instructor or department for details. *This section is hosted by the FIRE Technology & Applied Science cluster.*	Seats (Total: 38) ATL 2339
0107	Halli Weiner M 2:00pm - 2:50pm Contact instructor or department for details. *This section is hosted by the FIRE Natural Science cluster.*	Seats (Total: 38) ATL 2339
0108	Patrick McGurrin M 3:00pm - 3:50pm Contact instructor or department for details. *This section is hosted by the FIRE Social Science cluster.*	Seats (Total: 38) ATL 2339
0109	Jaclyn Bruner W 10:00am - 10:50am Contact instructor or department for details. *This section is hosted by the FIRE Social Science cluster.*	Seats (Total: 38) ATL 2339
0110	Randall Kania F 11:00am - 11:50am Contact instructor or department for details. *This section is hosted by the FIRE Technology & Applied Science cluster*	Seats (Total: 38) ATL 2339
0111	Benjamin Huffman F 2:00pm - 2:50pm Contact instructor or department for details. *This section is hosted by the FIRE Social Science cluster.*	Seats (Total: 38) ATL 2339

0112	Marissa Hartwig M 4:00pm - 4:50pm Contact instructor or department for details. *This section is hosted by the FIRE Social Science cluster.*	Seats (Total: 38) ATL 2339
0113	Shabnam Jabeen W 9:00am - 9:50am Contact instructor or department for details. *This section is hosted by the FIRE Technology & Applied Science cluster.*	Seats (Total: 38) ATL 2339
0114	Sara Strey F 10:00am - 10:50am Contact instructor or department for details. *This section is hosted by the FIRE Technology & Applied Science cluster.*	Seats (Total: 38) ATL 2339
0115	Thanicha Ruangmas F 3:00pm - 3:50pm Contact instructor or department for details. *This section is hosted by the FIRE Technology & Applied Science cluster.*	Seats (Total: 38) ATL 2339
0116	Lena Johnson F 4:00pm - 4:50pm Contact instructor or department for details. *This section is hosted by the FIRE Technology & Applied Science cluster*	Seats (Total: 38) ATL 2339
FC01	Thanicha Ruangmas W 5:00pm - 5:50pm Contact instructor or department for details. *Restricted to students in Freshmen Connection.*	Seats (Total: 40) ATL 2339

FIRE298 **FIRE Semester 3**

Capstone course in the FIRE (First-Year Innovation & Research Experience) program sequence. Students in this course transition from trainee to practitioner in their lab. This course focuses on the concepts related to the process of independent research including collaboration with peers, communication of ideas, troubleshooting unexpected outcomes, and discipline-specific methodologies.

0101	Catherine Spirito Th 3:30pm - 4:20pm Contact instructor or department for details. *Molecular Diagnostics.*	Seats (Total: 24) ATL 2339

0103	Cherisse Hall Th 2:00pm - 2:50pm Contact instructor or department for details. *Bacterial Pathogenesis.*	Seats (Total: 32) ATL 2339
0104	Jessica O'Hara W 11:00am - 11:50am Contact instructor or department for details. *Host-Pathogen Interactions.*	Seats (Total: 32) ATL 2339
0105	Quira Zeidan W 12:00pm - 12:50pm Contact instructor or department for details. *CellEx.*	Seats (Total: 32) ATL 2339
0106	Halli Weiner Th 12:30pm - 1:20pm Contact instructor or department for details. *Fertility Science.*	Seats (Total: 32) ATL 2339
0107	Danielle Niu W 4:00pm - 4:50pm Contact instructor or department for details. *Project Greenhouse.*	Seats (Total: 40) ATL 2339
0203	Patrick McGurrin W 3:00pm - 3:50pm Contact instructor or department for details. *Addiction Science.*	Seats (Total: 40) ATL 2339
0204	Jaclyn Bruner Th 11:00am - 11:50am Contact instructor or department for details. *Visualizing Social Justice.*	Seats (Total: 40) ATL 2339
0205	Benjamin Huffman Th 9:30am - 10:20am Contact instructor or department for details. *Global Development & Design.*	Seats (Total: 40) ATL 2339

0206	Marissa Hartwig Tu 9:30am - 10:20am Contact instructor or department for details. *Human Learning, Memory & Cognition.*	Seats (Total: 40) ATL 2339
0301	Randall Kania Tu 3:30pm - 4:20pm Contact instructor or department for details. *Design Engineering.*	Seats (Total: 40) ATL 2339
0303	Robert Young W 2:00pm - 2:50pm Contact instructor or department for details. *Genome Computing.*	Seats (Total: 40) ATL 2339
0304	Shabnam Jabeen Tu 2:00pm - 3:15pm Contact instructor or department for details. *Quantum Machine Learning.*	Seats (Total: 40) ATL 2339
0305	Sara Strey W 1:00pm - 1:50pm Contact instructor or department for details. *Climate Computing.*	Seats (Total: 40) ATL 2339
0306	Thanicha Ruangmas Tu 11:00am - 11:50am Contact instructor or department for details. *Sustainability Analytics.*	Seats (Total: 40) ATL 2339
0307	Lena Johnson Tu 12:30pm - 1:20pm Contact instructor or department for details. *BioInspired Robotics.*	Seats (Total: 20) ATL 2339

FIRE398 **FIRE Research Leadership**

Earn academic credit for the time spent supporting, mentoring, and leading students in FIRE Research streams.

0101	Catherine Spirito Contact instructor or department for details.	Seats (Total: 15)

0103	Cherisse Hall Contact instructor or department for details.	Seats (Total: 15)
0104	Jessica O'Hara Contact instructor or department for details.	Seats (Total: 15)
0105	Quira Zeidan Contact instructor or department for details.	Seats (Total: 15)
0106	Halli Weiner Contact instructor or department for details.	Seats (Total: 15)
0107	Danielle Niu Contact instructor or department for details.	Seats (Total: 15)
0203	Patrick McGurrin Contact instructor or department for details.	Seats (Total: 15)
0204	Jaclyn Bruner Contact instructor or department for details.	Seats (Total: 15)
0205	Benjamin Huffman Contact instructor or department for details.	Seats (Total: 15)
0206	Marissa Hartwig Contact instructor or department for details.	Seats (Total: 15)
0301	Randall Kania Contact instructor or department for details.	Seats (Total: 15)
0303	Robert Young Contact instructor or department for details.	Seats (Total: 15)
0304	Shabnam Jabeen Contact instructor or department for details.	Seats (Total: 15)
0305	Sara Strey Contact instructor or department for details.	Seats (Total: 15)
0306	Thanicha Ruangmas Contact instructor or department for details.	Seats (Total: 15)

Students will explore, define, and study global health, social determinants of health, health inequalities, gender inequality, family violence, and maternal and child health using a global perspective.

0101	Laura Drew	Seats (Total: 40)
	Th 9:30am - 10:45am	ONLINE
	Class time/details on ELMs	ONLINE

FMSC110S **Families and Global Health**

Students will explore, define, and study global health, social determinants of health, health inequalities, gender inequality, family violence, and maternal and child health using a global perspective.

0101	Elisabeth Maring	Seats (Total: 96)
	TuTh 12:30pm - 1:45pm	CCC 1100
	Restricted to CPSP Global Public Health (CPGH) students.	

FMSC123 **Personal Financial Literacy: From Distress to Success**

Exploring strategic thinking, career, education, financial planning during college years as the foundation for success in living a meaningful life. While introducing relevant institutions and tools & techniques that are critical for financial planning, this course applies value-based goal setting and strategic planning that inform individuals' paths for a successful career, educational attainment, and optimum (mental, physical and financial) wellbeing throughout their life cycle. The course particularly emphasizes the individual's responsibility of living in an institution rich society, where, continuous learning, understanding institutions, rational decision-making, valuing relationships and networking, early career development, record keeping, budgeting, generating income and wealth, purposeful spending, saving and investing, tax planning, appropriate use of loans, risk taking and insurance, and retirement planning are well rewarded and ensure the optimum use of college years and the rest of life-course.

0101	Jesse Ketterman	Seats (Total: 40)
	TuTh 5:30pm - 6:45pm	ONLINE

FMSC170 **Modern Families**

Credit only granted for: FMSC170 or FMSC298F. Formerly: FMSC298F.

What is a Family? Engage in examination of the current trends and controversial issues in family life, including issues of marriage, reproductive technologies, adoption, child custody, remarriage, and marital violence.

FC01	Colton Kilpatrick	Seats (Total: 45)
	TuTh 3:00pm - 4:15pm	SQH 1119
	Restricted to students in Freshmen Connection.	

FMSC177 **U SAD? Coping with Stress, Anxiety, and Depression**

Students on UMD campus experience new challenges to their mental health and well-being every semester, and there are limited resources to help students manage their own health or to support their peers. This experiential skill development workshop course is designed to assist students in developing their knowledge in ways to recognize, manage, and cope with symptoms of stress, anxiety, and depression. There is a focus on coping with pandemic-related and course-related concerns, relationship issues, and a range of other student concerns.

0101	Amy Morgan, Coda Gerber **Meets August 28, 2023 - October 17, 2023** M 1:00pm - 2:30pm Contact instructor or department for details.	Seats (Total: 30) SPH 0121
0102	Amy Morgan, Coda Gerber **Meets October 23, 2023 - December 11, 2023** M 1:00pm - 2:30pm Contact instructor or department for details.	Seats (Total: 30) SPH 0121

FMSC186 **Family Law and Ethics in Assisted Reproduction**

For students interested in studying the law, public health and/or family science, this course examines the cutting-edge law and ethics of assisted reproduction including the technologies of sperm and egg donation, in vitro fertilization, surrogacy, and reproductive organ transplants, and the impact on families.

FCW1	Kerry Tripp **Meets October 18, 2023 - December 11, 2023** Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 25) ONLINE

FMSC190 **Man Up! Where Are The Fathers?**

An examination of changing fatherhood roles, health, and inequality in diverse families. Focus will be on masculinities and disparities among men by race and class; provider role expectations; and trauma and violence faced by men in contemporary society.

0101	Kevin Roy MWF 11:00am - 11:50am	Seats (Total: 48) SPH 1301
FC01	Kevin Roy MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection. Students who enroll in FMSC190 FC01 must also enroll in IDEA101 FC02. Enrollment in these courses enrolls a student in the Carillon Communities living-learning program.*	Seats (Total: 10) HBK 1112

FMSC260 **Couples, Marriage, and Families: Intimate Relationship Across the Life Course**

Covers the different aspects of couple relationships and family life. This includes common problems in couple relationships, and resources to strengthen couple and family relationships. You will also learn about stages of relationships, theories of love and family, policy related to couples and family formation, and how research is conducted with couples and families. Together, we will discuss and explore issues that couples and families face in modern times and will consider how many of these issues have changed due to policy, technology, attitudes, and a variety of other societal factors that impact relationships in the 21st century. You will also learn important methods of strengthening current and future relationships.

Restricted to Majors or non-majors with less than or equal to 60 credits.

0101	Zachary Berman	Seats (Total: 55)
	TuTh 12:30pm - 1:45pm	ATL 1113

FMSC270 **Sex, Drugs, and Social Media: Adolescent Health and Development**

This course will ask: How can families, schools, communities, and society help adolescents to navigate contemporary stressors and develop into physically and mentally healthy adults? To do this, we will use research, and an understanding of adolescent development, to explore and analyze issues affecting the health and behavior of American adolescents. Such issues include (but are not limited to) sex education, the role of social media in mental health, substance use, policing in schools, dating violence, suicide prevention, access to sexual and reproductive health care, and school start times. We will consider how adolescent well-being is shaped by social contexts, including the role of parents and family members, peers, schools, communities, social media, and culture. We will examine policies and programs that affect adolescents, how effective they are at promoting adolescent health, and how they might be improved to better support healthy adolescent development.

0101	Amy Lewin	Seats (Total: 30)
	TuTh 9:30am - 10:45am	SPH 0307

FMSC286 **Assisted Reproduction Law and Policy in the US and Brazil**

Credit only granted for: FMSC186 or FMSC286. Additional information: This is a global classroom course where students will learn online, meet once a week in a synchronous class on Webex with their Brazilian classmates, and work individually via Webex in small international groups.

In this Global Classroom, U.S. students will work synchronously online with their international partners in Brazil to critically think about cutting-edge ethical, legal, policy and scientific issues in the field of Assisted Reproduction Technologies (ART) in the two countries. This course looks at conventional families created in unconventional ways to examine such topics as sperm and egg donation, in vitro fertilization, surrogacy, reproductive organ transplants and more - while considering the social, cultural, racial, religious, economic, or socioeconomic contexts that influence each. Students will work with their foreign peers in small groups to compare ART in each country and then create proposed legislation for either the U.S. or Brazil which their international group will present online to their colleges and submit to the country's legislators. In so doing, students will be challenged to think critically and see their place in creating actionable change in a global society.

0101	Kerry Tripp	Seats (Total: 15)
	Tu 2:00pm - 3:15pm	ONLINE
	Class time/details on ELMs	ONLINE

FMSC290 **Family Economics**

Credit only granted for: FMSC290 or FMST290. Formerly: FMST290.

Application of economic methodology to study families under various economic situations. Examination of how decisions about marriage, divorce, fertility, consumption and time use are influenced by labor/housing markets, tax structure, social welfare benefits and other economic considerations.

Restricted to Majors or non-majors with less than or equal to 60 credits.

0101	Farhad Rassekh	Seats (Total: 48)
	Class time/details on ELMs	ONLINE

FMSC302 **Research Methods in Family Science**

Prerequisite: Must have completed an introductory statistics course. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC302 or FMST302. Formerly: FMST302.

Introduction to the methods of the social and behavioral sciences employed in family science. The role of theory, the development of hypotheses, measurement, design, and data analysis.

0101	Julie Donney	Seats (Total: 50)
	MW 9:00am - 10:15am	SPH 1303

FMSC310 **Maternal, Child and Family Health**

Credit only granted for: FMSC310, FMSC410 or FMSC498A. Formerly: FMSC498A and FMSC410. Additional information: A comprehensive understanding of maternal, child, and family health, with additional emphasis on environmental health, needs assessment and evaluation, enabling students to more effectively address issues in the workplace.

Overview of the major issues in Maternal, Child, and Family Health in the U.S. and the world. The course will cover the social, political, environmental, and economic factors that shape the health of women, children, and families throughout the life course. It will employ the core disciplines of public health -- 1) epidemiology/biostatistics, 2) environmental health, 3) health policy and administration, and 4) social and behavioral health -- to examine these factors. The course introduces specific issues and interventions and places these issues and interventions within their broad sociohistorical context.

0101	Julia Steinberg	Seats (Total: 40)
	MW 11:00am - 12:15pm	SPH 1302

0201	Edmond Shenassa TuTh 11:00am - 12:15pm	Seats (Total: 48) BPS 0283
0401	Krystle McConnell TuTh 9:30am - 10:45am	Seats (Total: 48) BPS 0283
0501	Lindsay Mallick TuTh 12:30pm - 1:45pm	Seats (Total: 48) BPS 0283

FMSC330 **Family Health: Health Happens in Families**

Restriction: Junior standing or higher.

The objective of this gateway course is to help you understand and apply basic theories and empirical data on family health. The course is designed to provide you with skills to think critically about theories including: Life Course Theory, the Bio-Ecological and Social-Ecological Models, and Systems Theory. We will ask questions about the distinct qualities and intersections of contexts and characteristics that impact the functioning of families. We will apply theory and research to topical issues in family health that are impacted by social structures such as conflict, crisis, migration, incarceration and inequalities.

0101	Laura Golojuch MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 60) SPH 1303 ONLINE
0201	Colton Kilpatrick TuTh 12:30pm - 1:45pm	Seats (Total: 55) PLS 1130

FMSC332 **Children in Families**

Prerequisite: PSYC100 or FMSC105. Credit only granted for: FMSC332 or FMST332. Formerly: FMST332.

A family life education approach to the study of children and families. Emphasis on the interaction of children with parents, siblings, extended kin, and the community.

0101	Martha Yumiseva TuTh 11:00am - 12:15pm	Seats (Total: 65) SPH 1303
0201	Christine Schull MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 60) SPH 1303 ONLINE

FMSC340 **Mental Health and Healing in Families**

Using an interdisciplinary approach to study mental health, mental wellness, and substance use, we will answer questions such as: How has our understanding and treatment of mental health changed throughout history? What are the current prevalence patterns and risk factors associated with mental health conditions? What is the prevention to postvention continuum? What is the role of relationships, families, and communities in addressing mental health? How do we diagnose and treat various mental health disorders using the best available research? And, what are the various mental health disciplines and how do they differ? This course is designed to examine mental health issues across the life course. We will explore the influence of social contexts, including racism and additional forms of othering, on mental health and wellness, and introduce the health systems that support mental health prevention and treatment.

0101	Amy Morgan	Seats (Total: 48)
	TuTh 9:30am - 10:45am	SPH 1302

FMSC341 **Personal and Family Finance**

Credit only granted for: FMSC341 or FMST341. Formerly: FMST341.

Individual and family financial strategies with emphasis on financial planning, savings, investments, insurance, income taxes, housing, and use of credit. Planning, analyzing, and controlling financial resources to resolve personal/family financial problems and to attain financial security.

0101	Isha Chawla	Seats (Total: 45)
	Tu 5:30pm - 6:45pm	ONLINE
	Class time/details on ELMs	ONLINE

FMSC374 **Working with Diverse Families in Public Health Services**

Prerequisite: FMSC110.

Focuses on the "doing" and modeling of skills required in navigating diverse social environments with families. These skills are necessary to engage in authentic work as family scientists, public health professionals, and family health practitioners. Using an intersectional framework, we will examine cultural, ethnic, and linguistic diversity for families impacted by challenges to equity and privilege. The course material emphasizes deep knowledge and skill building towards cultural sensitivity, including history, values, language, religion, and communication with families across multiple racial and ethnic backgrounds. Students will also explore differences emerging from experiences of poverty, sexual orientation and gender identity, and disability. The goal of the course is to support students in developing a family/professional alliance for health and well-being.

0101	Rabiatu Barrie	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	ASY 3203

FMSC381 **Family Inequality**

Prerequisite: SOCY100 or SOCY105. Restriction: Must be in a major within SPHL-Family Science department.

Social, political, cultural and economic factors influencing income and wealth in American families.

0101	Kevin Roy MWF 9:00am - 9:50am	Seats (Total: 40) SPH 1302
0201	Natasha Williams TuTh 3:30pm - 4:45pm	Seats (Total: 40) ONLINE

FMSC383 **Health and Human Services Delivery and Evaluation**

Prerequisite: FMSC330. Restriction: Must be in a major within SPHL-Family Science department.

Processes of service delivery with special emphasis upon relationships among managers, service providers and clients. The impact of human service systems on families.

0101	Shanea Thomas MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 48) BPS 0283 ONLINE

FMSC399 **Independent Study**

(Perm req)

Contact department for information to register for this course.

FMSC432 **Adult Development and Aging in Families**

Prerequisite: PSYC100; and (SOCY100 or SOCY105). And FMSC332; or must have completed a comparable development course. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC432 or FMST432. Formerly: FMST432.

Theory, research, history, and programming related to adult development and aging in the intergenerational context of family.

0201	Christine Schull MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 40) SPH 1301 ONLINE

FMSC460 **Violence in Families**

Prerequisite: SOCY100, SOCY105, or PSYC100. Credit only granted for: FMSC460 or FMST460. Formerly: FMST460.

Theories of child, spouse, and elder abuse in the family setting. Emphasis on historical, psychological, sociological and legal trends relating to physical, emotional, and sexual abuse. Introduction to methods for prevention and remediation.

0101	Christine Schull MW 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 48) SPH 1301 ONLINE	

FMSC477 **Internship and Analysis in Family Science**

(Perm req)

Prerequisite: FMSC383; and 9 credits in FMSC courses; and permission of SPHL-Family Science department. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC477, FMST347, or FMST477. Formerly: FMST477.

A supervised internship and a seminar requiring analysis. Opportunities to integrate theory and practice including 120 hours of contracted field experience. Summer or fall internship contracts due May 1; Spring contracts due December 1. See department for application procedures.

0101	Kendyl Oliver M 1:00pm - 2:30pm Class time/details on ELMs	Seats (Total: 50) BPS 1236 ONLINE	 Lab

FMSC487 **Family Law**

Designed for students interested in studying the law, public health, and family science, this course provides students with a general overview of family law and the impact on healthy families. The course also includes the study of cutting-edge issues such as marriage equality, assisted reproduction and ethical issues that may arise.

0101	Kerry Tripp Th 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 45) HBK 0103 ONLINE
0201	Kerry Tripp Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 45) HBK 0103 ONLINE

FMSC498 **Special Topics: Family Science; Family Studies**

(Perm req)

Special course topics in family studies.

Contact department for information to register for this course.

FMSC498H **Special Topics: Family Science; Family Studies Honors Thesis**

(Perm req)

Special course topics in family studies.

Contact department for information to register for this course.

FMSC601 **Doctoral Seminar in the Process of Inquiry**

Restriction: Must be a first-year student in the Family Science doctoral program or Maternal and Child Health doctoral program; or permission of instructor .

This small, team-taught pro-seminar is designed as an introduction to the integration of family science and public health paradigms. The focus is the full, complex "process of inquiry", with emphasis on the conceptualization phase of the process, as it leads to related design, planning, empirical, and analytic phases. Instead of emphasizing content, the pro-seminar will help students develop a broad "way of thinking" about scientific inquiry, which will guide their coursework, assessments, and independent scholarly work during their doctoral training.

0101	Amy Lewin, Marie Thoma, Rabiatu Barrie **Meets October 20, 2023 - December 1, 2023** F 10:00am - 12:00pm	Seats (Total: 15) Location: TBA

FMSC606 **Ethnic Families and Health Disparities**

Credit only granted for: FMSC606 or FMST606. Formerly: FMST606.

Historical, psychosocial, economic, and political factors influencing the structure and functioning of ethnic families. Overview of racial and ethnic health disparities over the life course and ways in which they are influenced by multi-level contextual factors.

0101	Mia Smith-Bynum Th 2:00pm - 4:45pm	Seats (Total: 15) Location: TBA

FMSC640 **Family Therapy: Theory and Techniques**

Credit only granted for: FMSC640 or FMST640. Formerly: FMST640.

Overview of fundamental theoretical concepts and clinical procedures in marital and family therapy, with an emphasis on those therapies which operate from a family systems perspective.

0101	Tiara Fennell M 9:00am - 11:45am	Seats (Total: 11) Location: TBA

FMSC642 **Normal and Abnormal Individual and Family Development**

(Perm req)

Prerequisite: FMSC640. Credit only granted for: FMSC642 or FMST642. Formerly: FMST642.

Normal development and psychopathology in the family system. Emphasis on parent-child relationships and application of the current Diagnostic and Statistical Manual of Mental Disorders (DSM) to family therapy.

Formerly: FMST642. Credit only granted for FMSC642 or FMST642. Prerequisite: FMSC640. Normal development and psychopathology in the family system. Emphasis on parent-child relationships and application of the current Diagnostic and Statistical Manual of Mental Disorders (DSM) to family therapy.

0101	Torrie Blackwell M 10:00am - 12:45pm	Seats (Total: 15) Location: TBA

FMSC650 **Ethical, Legal, and Professional Principles in Couple and Family Therapy**

(Perm req)

Prerequisite: Permission of SPHL-Family Science department. Restriction: Must be in Couple and Family Therapy (Master's) program.

This course offers an introduction to the basic principles and practices in couple and family therapy. It covers major theoretical approaches to couple and family therapy, linking core concepts to practical aspects of assessment and treatment. Readings, didactic presentations by the instructor, and class discussions are designed to build students' knowledge of both generic therapy skills and specific techniques within each theoretical model. Emphasis is given to professional ethics, standards, and clinical skills/techniques necessary for the beginning family practitioner. Students become familiar with professional ethical codes as well as ethical decision-making models and how to apply them in clinical practice. In-class roleplays are used for practicing specific assessment and treatment methods, as well as for gaining experience in responding appropriately to a variety of common professional and ethical issues that arise in clinical practice.

0101	Erica Turner Tu 10:00am - 12:45pm	Seats (Total: 25) Location: TBA

FMSC652 **Psychopathology and Diagnosis in Family Systems**

Prerequisite: FMSC651. Restriction: Must be in Couple and Family Therapy (Master's) program.

The purpose of this course is to assist intermediate family therapists in further developing their knowledge, clinical, and professional expertise by deepening their understanding of major child and adult psychopathology. Further, students will learn to apply this knowledge to their clinical work, particularly in addressing individual family members' psychopathology within the context of family relationships. Major foci of the course include assessment and diagnostic interviewing in family therapy, and intervention with forms of psychopathology such as depression, anxiety disorders, substance abuse, and major mental disorders with clients who present for couple and family therapy.

0101	Mona Mittal Tu 9:30am - 12:15pm	Seats (Total: 20) Location: TBA

FMSC658 **Supervised Clinical Practice in Couple and Family Therapy**

(Perm req)

This course is designed to provide supervision of family, couple, and individual therapy client contact. This course is limited to, and required of, all students admitted to the Couples and Family Therapy (CFT) Program. Supervision utilizes various family systems models and differing methods are employed.

Prerequisite: FMST 650 and permission of instructor.

0101	Tiara Fennell W 9:00am - 12:00pm	Seats (Total: 20) Location: TBA

FMSC660 **Program Planning and Evaluation in Family Science**

Credit only granted for: FMSC660 or FMST660. Formerly: FMST660.

Theory and methods of program planning and evaluation with special emphasis on family programs. Assessment of program goals and the social and psychological factors involved in program implementation. Methods for measuring the effectiveness of program delivery, as well as the impact of services on family functioning.

0101	Amy Lewin M 1:00pm - 3:45pm	Seats (Total: 15) Location: TBA

FMSC689 **Research Internship**

(Perm req)

Research experience resulting in a scholarly article suitable for publication in a peer-reviewed journal.

Contact department for information to register for this course.

FMSC698 **Advanced Topics in Family Science**

(Perm req)

Arranged group study on specific topic which may vary from term to term.

Must have written permission of faculty member and chairperson.

Contact department for information to register for this course.

FMSC698A **Advanced Topics in Family Science**

Arranged group study on specific topic which may vary from term to term.

0101	Mona Mittal Th 10:00am - 12:45pm	Seats (Total: 15) Location: TBA

FMSC699 **Independent Study**

(Perm req)

Contact department for information to register for this course.

FMSC740 **Reproductive and Perinatal Epidemiology**

Prerequisite: Must have completed a graduate course in epidemiology with a B- or higher. Credit only granted for: FMSC612 or FMSC740. Formerly: FMSC612.

Focuses on current research, controversial issues, and methodological challenges in the epidemiology of reproductive and perinatal health. Reproductive health topics will include fertility and fecundity, quality family planning services, hormone replacement therapy, and reproductive health cancers. Perinatal health topics will include fetal growth, adverse pregnancy and birth outcomes, fetal/infant/maternal morbidity and mortality, and birth defects. Lectures will focus on the biology, measurement, and application of study designs and analytic strategies for examining these topics. Course readings and discussions will critically review the broader context of reproductive and perinatal health within families and communities.

0101	Jessica Gleason Tu 4:00pm - 6:45pm	Seats (Total: 15) Location: TBA

FMSC745 **Gender and Ethnicity in Family Therapy and Service Delivery**

(Perm req)

Credit only granted for: FMSC745 or FMST745. Formerly: FMST745.

The purpose of this course is to improve students' cultural competence by sensitizing them to sources of bias in family service delivery, particularly those associated with race, culture/ ethnicity, social class, gender, sexual orientation, immigration, spirituality, and ability. Students will be introduced to major critiques of service delivery, couple and family therapy, and research from each of these perspectives, as well as recommendations for addressing these issues in practice.

0101	Jasmine Ferrill Th 9:00am - 11:45am	Seats (Total: 15) Location: TBA

FMSC789 **Non-Thesis Research**

(Perm req)

Non-thesis option research papers.

Contact department for information to register for this course.

FMSC799 **Master's Thesis Research**

(Perm req)

Must have written permission of faculty member and chairperson.

Contact department for information to register for this course.

FMSC879 **Preparing Future Faculty and Professionals Seminar**

(Perm req)

Development of skills necessary to obtain and succeed in academic and non-academic positions in family science and public health. Topics include: career mapping, networking, teaching/teaching portfolios, independent research, publishing, grant writing, program and policy evaluation, consulting, job search, interviewing and negotiation, mentoring, diversity, work-family balance, and ethical issues in the workplace. Periodic visits to universities and government/nonprofit employers.

Development of skills necessary to obtain and succeed in academic and non-academic positions in family science and public health.

0101	Colton Kilpatrick W 1:00pm - 1:50pm	Seats (Total: 10) Location: TBA

FMSC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

FMSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

FREN French Fall 2023

FREN103 **Intensive Elementary French**

Prerequisite: Must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not have completed FREN102; and must not be a native/fluent speaker of French. Credit only granted for: FREN102 or FREN103.

Covers speaking, reading, writing, listening, and culture of French-speaking world.

0101	Morgan Stinson MWF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 18) SQH 1123 ONLINE
0201	Morgan Stinson MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 18) SQH 1123 ONLINE
0301	Morgan Stinson MWF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 18) SQH 1123 ONLINE

FREN203 **Intensive Intermediate French**

Prerequisite: FREN103; or must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN201 or FREN203.

Covers speaking, reading, writing, listening, and culture of French-speaking world.

0101	Apolline Lagarde MWF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 20) JMZ 3205 ONLINE
0201	Apolline Lagarde MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 20) JMZ 3205 ONLINE
0301	Richard Adle MWF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 20) JMZ 3205 ONLINE
0401	Richard Adle MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 20) JMZ 3205 ONLINE

FREN204 **French Grammar and Composition**

Prerequisite: FREN201 or FREN203; or must have appropriate World Language Placement Test (WLPT) score. Restriction: Not open to native/fluent speakers of French.

Intensive study of French grammar and composition.

0101	Inaam Ngadi MWF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 18) WDS 1127 ONLINE
0201	Charlotte Joublot MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 18) WDS 1127 ONLINE

FREN211 **French Reading and Conversation**

Prerequisite: FREN201 or FREN203. Restriction: Must not be a native/fluent speaker of French.

Practice in spoken French at intermediate level based on readings in a variety of genres. Written homework and exams.

Contact department for information to register for this course.

FREN242 **Francophone Writers of Africa and the African Diaspora**

An analysis of the works and ideas of 20th and 21st century Francophone writers (Africa, the Caribbeans, France). Taught in English.

0101	Valerie Orlando MW 2:00pm - 3:15pm	Seats (Total: 25) TWS 0207

FREN250 **Introduction to Cultural and Textual Analysis**

Prerequisite: FREN204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN250 or FREN250H.

Introduction to cultural and textual analysis of selected readings from various genres in French literature. Taught in French.

Jointly offered with FREN 250H.

0101	Charlotte Joublot MW 2:00pm - 3:15pm	Seats (Total: 18) ESJ 1309
0201	Charlotte Joublot TuTh 12:30pm - 1:45pm	Seats (Total: 18) JMZ 3205

FREN250H **Introduction to Cultural and Textual Analysis**

Prerequisite: FREN204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN250 or FREN250H.

Introduction to cultural and textual analysis of selected readings from various genres in French literature. Taught in French.

For general honors students only. Jointly offered with FREN 250.

0101	Charlotte Joublot MW 2:00pm - 3:15pm	Seats (Total: 18) ESJ 1309
0201	Charlotte Joublot TuTh 12:30pm - 1:45pm	Seats (Total: 18) JMZ 3205

FREN269F **Special Topics in Study Abroad II; French Conversation I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269G **Special Topics in Study Abroad II; French Conversation**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269P **Special Topics in Study Abroad II; Perspectives on Contemporary France**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN301 **Composition and Style**

Prerequisite: FREN250; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Grammatical analysis, elements of style; range of written genres.

0101	Theavy Din MW 2:00pm - 3:15pm	Seats (Total: 18) JMZ 1120
0201	Theavy Din MW 3:30pm - 4:45pm	Seats (Total: 18) JMZ 3205

FREN302 **Introduction to Translation**

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

Hands-on practice in translation to include a variety of formats and texts (for example, advertising, legal, technical, literary, journalistic, media...) into French and/or English. Includes an extensive overview of translation techniques, theories and approaches. Taught mainly in French.

0101	Herve Campangne TuTh 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 20) JMZ 3205 ONLINE

FREN306 **Commercial French I**

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

Introduction to commercial French including correspondence and business terminology. Emphasis on cross-cultural concepts needed for successful interaction within business settings. Taught in French.

Contact department for information to register for this course.

FREN311 **Advanced Oral Expression**

Prerequisite: FREN250; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Linguistic and thematic analysis of written, audio, and visual texts. Focus on aural and oral skills. Some written assignments and evaluation.

Contact department for information to register for this course.

FREN312 **France Today**

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Analysis and discussion of current events and institutions using various French media resources.

0101	Herve Campangne TuTh 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 20) JMZ 1122 ONLINE

FREN351 **From Romanticism to the Age of Modernism and Beyond**

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from Pre-Romanticism to the present.

Jointly offered with FREN 351H.

0101	Caroline Eades MW 3:30pm - 4:45pm	Seats (Total: 20) JMZ 3203

FREN351H **From Romanticism to the Age of Modernism and Beyond**

(Perm req)

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from Pre-Romanticism to the present.

Cross-listed with FREN351.

0101	Caroline Eades MW 3:30pm - 4:45pm	Seats (Total: 20) JMZ 3203

FREN352 **From the Age of Epic and Romance to the Enlightenment**

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from the Middle Ages to the end of the 18th century.

Contact department for information to register for this course.

FREN369F **Special Topics in Study Abroad III; Third Year French I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN369G **Special Topics in Study Abroad III; Third-Year French II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN369Y **Special Topics in Study Abroad III; Fourth-Year French I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

FREN387 **Critical Writing on France and the French-Speaking World**

Prerequisite: FREN301. Restriction: Not open to Native speakers.

Intensive writing course based on focused study of issues and concerns drawn from French and Francophone literatures, films, and cultures. Elements of style, review of grammar. Taught in French.

Paris: Fact, Fiction, and Fantasy.

0101	Hannah Wegmann	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 1124

FREN399 **Directed Study in French**

(Perm req)

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Supervised work under professor of student's choice with permission of instructor. Contact department for details.

Contact department for information to register for this course.

FREN399A **Directed Study in French**

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Contact department for information to register for this course.

FREN423 **Women and French Cinema**

Cross-listed with: CINE423. Credit only granted for: FREN423, CINE423 or FILM423. Formerly: FILM423.

Cultural identity, social boundaries and gender roles in French film as well as introduction to film textual analysis and diverse film theories (semiotics, film and psychoanalysis, feminist film theory, structuralism, narratology, spectatorship and cultural studies). Taught in French.

0101	Caroline Eades	Seats (Total: 20)
	MW 2:00pm - 3:15pm	JMZ 0103

FREN495H **Honors Thesis Research**

(Perm req)

Restriction: Must be admitted to the departmental honors program.

The writing of a paper under the direction of a professor in this department and an oral examination. Required to fulfill the departmental honors requirement.

Contact department for information to register for this course.

FREN499 **Special Topics in French Studies**

An aspect of French studies, the specific topic to be announced each time the course is offered.

Contact department for information to register for this course.

FREN499M **Special Topics in French Studies; Borders, Exile, and War in the Mashrek: Representations in Literature, Film, and Media of the Francophone Middle East**

An aspect of French studies, the specific topic to be announced each time the course is offered.

Cross-listed with ARAB499F. Credit only granted for FREN499M or ARAB499F. Explores selected films and francophone texts in translation from various genres (plays, essays, novels, poetry) with a focus on the concepts of borders, exile, and war from and on the Middle East. Taught in English.

0101	Marilyn Matar	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	LEF 1220

FREN499X **Special Topics in French Studies; Directed Study in French**

An aspect of French studies, the specific topic to be announced each time the course is offered.

Contact department for information to register for this course.

FREN649A **Special Topic in Eighteenth Century French Literature; Science and Fiction in the Anthropocene: An Ecocritical Approach to the French Enlightenment**

Explores selected texts from various genres (plays, essays, novels, poetry) with a focus on the emerging environmental crisis. Students will review the major theoreticians of the French Environmental Humanities while examining how 18th-century science, fictions, and sci-fi imagined new relationships between humans and non-humans.

0101	Sarah Benharrech	Seats (Total: 10)
	Tu 4:30pm - 7:15pm	HJP 3142

FREN699O **Seminar; A Literary History of Algeria: 1900-2000**

Topic to be determined each semester.

0101	Valerie Orlando	Seats (Total: 10)
	M 4:30pm - 7:15pm	HJP 3142A

FREN709 **College Teaching of French**

Introduction to the teaching of French at the college level with particular emphasis on methodology. Seminars in theory, demonstration of different teaching techniques, supervised practice teaching, training in language laboratory procedures, evaluation of instructional materials. Required of all graduate assistants in French.

Restricted to FRIT and FRMS graduate students unless permission granted by instructor.

0101	Hannah Wegmann	Seats (Total: 6)
	F 1:00pm - 1:50pm	Location: TBA

FREN798 **Master's Independent Study**

(Perm req)

Contact department for information to register for this course.

FREN799 **Master's Thesis Research**

Contact department for information to register for this course.

FREN889 **Doctoral Independent Study**

(Perm req)

Contact department for information to register for this course.

FREN898 **Pre-Candidacy Research**

Contact department for information to register for this course.

FREN899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

GEMS Gemstone Fall 2023

GEMS100 **Freshman Honors Colloquium: Introduction to Gemstone**

Restriction: Must be in the Gemstone program.

Orienting new Gemstone students to the university and to the program through a variety of team building activities, resources, and skill exploration exercises. Students will also examine and discuss areas such as liberal education, diversity, service, arts, current events, academic integrity, and leadership style.

0101	David Lovell	Seats (Total: 11)
	Tu 11:00am - 12:15pm	ELL 0102

0102	David Lovell Tu 12:30pm - 1:45pm	Seats (Total: 11) ELL 0102
0103	David Lovell Tu 2:00pm - 3:15pm	Seats (Total: 11) ELL 0100A
0104	David Lovell Tu 3:45pm - 5:00pm	Seats (Total: 11) ELL 0100A
0105	David Lovell W 10:00am - 11:15am	Seats (Total: 11) ELL 0102
0106	David Lovell W 12:30pm - 1:45pm	Seats (Total: 11) ELL 0100A
0107	David Lovell W 3:30pm - 4:45pm	Seats (Total: 11) ELL 0100A
0108	David Lovell W 4:45pm - 6:00pm	Seats (Total: 11) ELL 0102
0109	David Lovell Th 9:30am - 10:45am	Seats (Total: 11) ELL 0102
0110	David Lovell Th 12:30pm - 1:45pm	Seats (Total: 11) ELL 0102
0111	David Lovell Th 2:00pm - 3:15pm	Seats (Total: 11) ELL 0100A
0112	David Lovell Th 5:00pm - 6:15pm	Seats (Total: 11) ELL 0102
0113	David Lovell F 9:15am - 10:30am	Seats (Total: 11) ELL 0102
0114	David Lovell F 10:30am - 11:45am	Seats (Total: 11) ELL 0100A
0115	David Lovell F 11:15am - 12:30pm	Seats (Total: 11) ELL 0102

GEMS202 **Team Dynamics and Research Methodology**

Prerequisite: GEMS100, GEMS102, and GEMS104. Corequisite: GEMS296. Restriction: Must be in the Gemstone program; and sophomore standing or higher.

This experiential course is designed to foster an understanding of effective team dynamics and basic research methodology. It will teach skills applicable to Gemstone team research and the writing of a team thesis. Upperclass Gemstone students serve as discussion facilitators. Students participate in their Gemstone teams and develop a draft of their team thesis proposal.

0101	Allison Lansverk	Seats (Total: 168)
	Tu 5:00pm - 6:30pm	EGR 1202
	Contact instructor or department for details.	

GEMS208A **Special Topics in Leadership and Team Development; Team Dynamics and Research Methodology: First Time Section Leader**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

Restriction: Must be in the Gemstone program.

0101	Allison Lansverk	Seats (Total: 14)
	Contact instructor or department for details.	

GEMS208B **Special Topics in Leadership and Team Development; Team Dynamics and Research Methodology: Returner Section Leader**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

Restriction: Must be in the Gemstone program.

0101	Allison Lansverk	Seats (Total: 14)
	Class time/details on ELMs	ONLINE

GEMS208C **Special Topics in Leadership and Team Development; Introduction to Gemstone: First Time Section Leader**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

Restriction: Must be in the Gemstone program. These classes are scheduled in the Ellicott building.

0101	Allison Lansverk	Seats (Total: 23)
	Contact instructor or department for details.	

GEMS208D **Special Topics in Leadership and Team Development; Introduction to Gemstone: Returner Section Leader**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

Restriction: Must be in the Gemstone program. These classes are scheduled in the Ellicott building.

0101	Allison Lansverk	Seats (Total: 10)
	Contact instructor or department for details.	

GEMS208J **Special Topics in Leadership and Team Development; Gems Camp**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Allison Lansverk	Seats (Total: 24)
	Contact instructor or department for details.	

GEMS208K **Special Topics in Leadership and Team Development; GEMS Connect**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

Restriction: Must be in the Gemstone program.

0101	Allison Lansverk	Seats (Total: 50)
	Contact instructor or department for details.	

GEMS208M **Special Topics in Leadership and Team Development; AMPP: The Gemstone Alumni Mentor & Partner Program**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	David Lovell	Seats (Total: 100)
	Contact instructor or department for details.	

GEMS208P **Special Topics in Leadership and Team Development; Gemstone Leadership Council**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Allison Lansverk Contact instructor or department for details.	Seats (Total: 20)

GEMS208Q **Special Topics in Leadership and Team Development; Facilitator TA**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Jazmin Pichardo Contact instructor or department for details.	Seats (Total: 2)

GEMS296 **Team Project Seminar I**

Prerequisite: GEMS100, GEMS102, and GEMS104. Corequisite: GEMS202. Restriction: Must be in the Gemstone program with sophomore standing in a research team.

This is the first of six seminars during which Gemstone students carry out multidisciplinary research with the guidance of a faculty mentor. The teams develop their working relationship, start their literature search, define their research question, and set short & long term goals.

0101	Heng Huang W 10:00am - 10:50am	Seats (Total: 14) Location: TBA
0102	Birthe Kjellerup Shirtliff Th 10:00am - 10:50am	Seats (Total: 14) ONLINE
0103	Giuliano Scarcelli W 6:00pm - 6:50pm	Seats (Total: 14) AJC 4104
0104	Erik Nesse M 5:00pm - 5:50pm	Seats (Total: 14) ONLINE
0105	Andrew Schiffmacher M 6:00pm - 6:50pm	Seats (Total: 14) ONLINE
0106	Becky Epanchin-Niell M 6:30pm - 7:20pm	Seats (Total: 14) ELL 0100A

0107	Michael Otte F 4:00pm - 4:50pm	Seats (Total: 14) EGR 1179
0108	Philip DeShong Th 11:00am - 11:50am	Seats (Total: 14) HBK 0109
0109	Veronica Kang F 12:00pm - 12:50pm	Seats (Total: 14) Location: TBA
0110	Lucas Butler F 3:00pm - 3:50pm	Seats (Total: 14) EDU 3237
0111	Johan Larsson F 4:00pm - 4:50pm	Seats (Total: 14) EGR 2164
0112	Yanjin Zhang M 8:00am - 8:50am	Seats (Total: 14) HBK 0108
0113	Erin Tran F 4:00pm - 4:50pm	Seats (Total: 14) ASY 3217
0114	Instructor: TBA Contact instructor or department for details.	Seats (Total: 14)
0115	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS297 **Team Project Seminar II**

Restriction: Must be in the Gemstone program with sophomore standing in a research team.

This is the second of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team develops its website, prepares and presents its research proposal and begins its research project.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 14)
0113	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

GEMS396 **Team Project Seminar III**

Prerequisite: GEMS297. Restriction: Must be in the Gemstone program with junior standing in a research team.

This is the third of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team presents its progress at the Gemstone Colloquia.

0101	Anil Deane M 5:00pm - 5:50pm F 6:00pm - 6:50pm	Seats (Total: 14) ATL 4364 ATL 4364
0102	Mohammad Hafezi Tu 7:00pm - 7:50pm TBA	Seats (Total: 14) PHY 2219 ATL 2366
0103	Fernando Raffan Montoya M 2:30pm - 3:20pm W 7:00pm - 7:50pm	Seats (Total: 14) Location: TBA Location: TBA
0104	Sylvette La Touche-Howard M 4:00pm - 4:50pm Su 5:00pm - 5:50pm	Seats (Total: 14) SPHL 1234A Location: TBA
0105	Sahil Shah Tu 12:00pm - 12:50pm Su 12:00pm - 12:50pm	Seats (Total: 14) AVW 2465 Location: TBA
0106	Peter Sunderland M 7:30pm - 8:20pm F 3:00pm - 3:50pm	Seats (Total: 14) ONLINE ONLINE
0107	Myles Poulin F 2:00pm - 2:50pm Th 7:00pm - 7:50pm	Seats (Total: 14) HBK 0125 Location: TBA
0108	Mohammad Hajiaghayi M 7:00pm - 7:50pm W 6:30pm - 7:20pm	Seats (Total: 14) IRB 5107 ONLINE
0109	Brantley Hall M 8:00pm - 8:50pm F 2:00pm - 2:50pm	Seats (Total: 14) Location: TBA Location: TBA
0110	Allan Doctor Th 8:00am - 8:50am Su 5:00pm - 5:50pm	Seats (Total: 14) Location: TBA Location: TBA

0111	Huang Chiao Huang F 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 14) AJC 5104 ONLINE
0112	Dana Dachman-Soled Tu 4:00pm - 4:50pm Th 4:00pm - 4:50pm	Seats (Total: 14) JMZ 1117 JMZ 1117
0113	Derek Paley Th 8:00pm - 8:50pm Th 9:00pm - 9:50pm	Seats (Total: 14) JMZ 0103 JMZ 0103
0114	Daniel Stein M 6:00pm - 6:50pm M 7:00pm - 7:50pm	Seats (Total: 14) MCB 1123 MCB 1123
0115	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS397 **Team Project Seminar IV**

Prerequisite: GEMS396. Restriction: Must be in the Gemstone program with junior standing in a research team.

This is the fourth of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team further develops its website. Also they will prepare and present the team project in the poster session of Undergraduate Research Day.

0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS496 **Project Writing Seminar**

Prerequisite: GEMS397. Restriction: Must be in the Gemstone program.

This is the fifth of six seminars during which Gemstone students carry out research with the guidance of a faculty mentor. The team finishes the analysis of their data and writes and edits its team thesis.

0101	Kan Cao Th 8:00pm - 8:50pm F 7:30pm - 8:20pm	Seats (Total: 14) Location: TBA Location: TBA
0102	Tao Lowe M 6:00pm - 6:50pm Tu 7:15pm - 8:05pm	Seats (Total: 14) ESJ B0322 JMZ 0208

0103	Joseph Beaudoin M 4:30pm - 5:20pm M 5:30pm - 6:20pm	Seats (Total: 14) Location: TBA Location: TBA
0104	Bao Yang M 1:00pm - 1:50pm W 5:00pm - 5:50pm	Seats (Total: 14) EGR 3111 EGR 3102
0105	David Kriesberg MW 8:00am - 8:50am	Seats (Total: 14) ONLINE
0106	Soheil Feizi M 4:00pm - 4:50pm F 1:00pm - 1:50pm	Seats (Total: 14) ONLINE Location: TBA
0107	Ray Sedwick F 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 14) ONLINE ONLINE
0108	Lance Yonkos Tu 7:00pm - 7:50pm Tu 8:00pm - 8:50pm	Seats (Total: 14) ANS 0538 ANS 0538
0109	Timothy Horiuchi W 9:00am - 9:50am M 9:00am - 9:50am	Seats (Total: 14) AVW 2238 EGR 3114
0110	Po-Yen Chen Tu 6:00pm - 6:50pm Th 6:00pm - 6:50pm	Seats (Total: 14) Location: TBA JMZ 0208
0111	Elizabeth Aparicio Tu 5:00pm - 5:50pm Tu 6:00pm - 6:50pm	Seats (Total: 14) ONLINE ONLINE
0112	Ryan Sochol W 1:00pm - 1:50pm W 2:00pm - 2:50pm	Seats (Total: 14) EGL 0105 EGL 0105
0113	David Lovell Contact instructor or department for details.	Seats (Total: 3)

GEMS497 **Team Thesis Defense**

Prerequisite: GEMS396. Restriction: Must be in the Gemstone program.

Gemstone teams will complete the team research project and thesis. The team will formally present the thesis to experts in the area of interest at a Team Thesis Conference before final submission.

0113	David Lovell	Seats (Total: 5)
	Contact instructor or department for details.	

GEOG Geographical Sciences Fall 2023

GEOG110 **The World Today: Global Perspectives**

The most critical issue facing the world today is the sustainability of both human and physical systems in the 21st century. This class uses the context of regions of the world to explore the 21st century issues of climate change, development, politics, economy, and demography. Each region will be used to highlight aspects of sustainability.

FC01	Rachel Haber	Seats (Total: 24)
	MW 3:00pm - 4:15pm	LEF 2166
	Restricted to students in Freshmen Connection.	

GEOG130 **Development Geography: Environmental & Social Justice**

The geography of economic, social, and environmental well-being and inequality. The course will provide an integrated perspective on the causes, interconnections, and consequences across time and space of, among others, globalization, climate change, poverty, employment, migration and urban growth, agricultural productivity, rural development, policies and international trade. Portraits of selected countries and regions will be developed.

FC01	Byron Marroquin	Seats (Total: 24)
	TuTh 4:30pm - 5:45pm	SPH 1301
	Restricted to students in Freshmen Connection.	

GEOG140 **Natural Disasters: Earthquakes, Floods, and Fires**

Catastrophic Environmental Events (CCE) that are becoming more common in this time of global environmental change and it is essential that today's students be equipped with the knowledge and skills to be leaders as we, as a society, understand the upheaval that these CCEs are causing. Students will examine how CEEs shape human society and ecosystem from the interdisciplinary perspective afforded by the field of Geography. Students will use the latest geographic science concepts and techniques in exploring these events. Using satellite imagery they will gain a multi-scale perspective of the ecological and societal aspects of the events.

0101	Keith Yearwood	Seats (Total: 250)
	MW 1:00pm - 1:50pm Class time/details on ELMs	ARC 0204 ONLINE

FC01	Keith Yearwood MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 39) TWS 1310	

GEOG170 **Mapping our Digital World**

Introduction to technical methods used in gathering, analyzing, and mapping geospatial information for applications such as urban mobility, environmental monitoring, situational awareness, and disaster management. Topics include Geographic Information Systems (GIS), cartography, map projections, satellite and airborne remote sensing, the global positioning system (GPS), and introductory statistics and probability. The course is a gateway to more advanced technical classes in geospatial science.

0101	Naijun Zhou MW 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 150) LEF 2205 ONLINE	
FC01	Rachel Marks MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) LEF 2166	

GEOG201 **Geography of Environmental Systems**

A systematic introduction to the processes and associated forms of the atmosphere and earth's surfaces emphasizing the interaction between climatology, hydrology and geomorphology.

0101	Chris Justice TuTh 12:30pm - 1:45pm	Seats (Total: 240) ESJ 0224	
FC01	Ahmad Khan F 1:00pm - 4:00pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) EDU 1121	

GEOG202 **Introduction to Human Geography**

Introduction to what geographers do and how they do it. Systematic study of issues regarding social and cultural systems from a global to a local scale. Looks at the distribution of these variables and answers the question "Why here, and not there"?

0101	Laixiang Sun MW 3:00pm - 3:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 LEF 1201	 Discussion
0102	Laixiang Sun MW 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 25) LEF 2205 LEF 1201	 Discussion

0103	Laixiang Sun MW 3:00pm - 3:50pm F 12:00pm - 12:50pm	Seats (Total: 25) LEF 2205 LEF 1220	 Discussion
0104	Laixiang Sun MW 3:00pm - 3:50pm F 2:00pm - 2:50pm	Seats (Total: 25) LEF 2205 LEF 1220	 Discussion

GEOG211 **Geography of Environmental Systems Laboratory**

Prerequisite: Must have completed or be concurrently enrolled in GEOL120, GEOL100, or GEOG201.

A laboratory course to accompany GEOG 201. Analysis of the components of the earth's energy balance using basic instrumentation; weather map interpretation; soil analysis; the application of map and air photo interpretation techniques to landform analysis.

This is a 2 hr, 1 credit lab which parallels GEOG 201; Required for GEOG majors; optional for non-majors.

0101	Chris Justice, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0201	Chris Justice, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0301	Chris Justice, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0401	Chris Justice, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0501	Chris Justice, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0601	Chris Justice, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0701	Chris Justice, Shi Wee Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0801	Chris Justice, Shi Wee Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab

0901	Shi Wee, Chris Justice Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
1001	Chris Justice, Shi Wee Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
FCW1	Iman Smith Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 35) ONLINE	Lab

GEOG272 Introduction to Earth Observation Science

Credit only granted for: GEOG272 or GEOG372. Formerly: GEOG372.

Concepts and principles of Earth observation and remote sensing in relation to photographic, thermal infrared and radar imaging. Methods of obtaining quantitative information from remotely-sensed images. Interpretation of remotely-sensed images emphasizing the study of spatial and environmental relationships.

Students must pay a $40.00 laboratory materials fee.

0101	Catherine Nakalembe MW 9:00am - 9:50am F 11:00am - 12:50pm	Seats (Total: 25) TYD 0117 LEF 1136	Lab
0102	Catherine Nakalembe MW 9:00am - 9:50am F 11:00am - 12:50pm	Seats (Total: 25) TYD 0117 LEF 1138	Lab
0103	Catherine Nakalembe MW 9:00am - 9:50am Th 11:00am - 12:50pm	Seats (Total: 25) TYD 0117 LEF 1136	Lab
0104	Catherine Nakalembe MW 9:00am - 9:50am Th 11:00am - 12:50pm	Seats (Total: 25) TYD 0117 LEF 1138	Lab

GEOG276 Principles of Python Programming and Geocomputing

Introduces conceptual and practical aspects of scientific computing using the Python programming language. The main focus is on developing proficiency for the basic elements of the development environment, foundational syntax including variables, logical operators, looping, conditional statements, nesting, and common programming patterns for mathematical and textual computing. In addition, essential data structures and functionality for scientific computing, such as arrays, dataframes, and data visualization will be introduced. Throughout the course, students will also become exposed to various applications in the domain of the social and environmental sciences.

Students must pay a $40.00 laboratory materials fee.

0101	Taylor Oshan MW 11:00am - 11:50am W 12:00pm - 1:50pm	Seats (Total: 24) LEF 1158 LEF 1136	 Lab
0102	Taylor Oshan MW 11:00am - 11:50am W 12:00pm - 1:50pm	Seats (Total: 24) LEF 1158 LEF 1138	 Lab

GEOG330 **As the World Turns: Society and Sustainability in a Time of Great Change**

Credit only granted for: GEOG330, GEOG360, or GEOG362. Formerly: GEOG362.

Cultural geography course on society and sustainability. Culture is the basic building block that is key to sustainability of societies. Course will cover sustainability of societies on different scales, examining local, regional, and worldwide issues. Sustainability will be examined as a key element of environmental sustainability. How societies adjust to rapid world change will be examined as a positive and/or negative factor in sustainability.

0101	Rachel Haber MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2208 LEF 1220	 Discussion
0102	Rachel Haber MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) ESJ 2208 LEF 1220	 Discussion
0103	Rachel Haber MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) ESJ 2208 LEF 1220	 Discussion
0104	Rachel Haber MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) ESJ 2208 TYD 0111	 Discussion

0105	Rachel Haber MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) ESJ 2208 LEF 1220	 Discussion
0106	Rachel Haber MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2208 TYD 0111	 Discussion

GEOG371 **Programming for Image Analysis**

Prerequisite: GEOG276, GEOG306, and GEOG272.

Introduces application programing interface (API) functions and image processing techniques for efficient processing of satellite images. The main programing language of the course is Python. The course will use a Geospatial Data Abstraction Library (GDAL) which provides a unified way of manipulating images incorporating geospatial information. For image processing, the course will use Python-based libraries such as scikit-image and OpenCV.

0101	Xiaopeng Song TuTh 9:30am - 10:45am	Seats (Total: 25) WDS 0104	

GEOG373 **Geographic Information Systems**

Characteristics and organization of geographic data; creation and use of digital geospatial databases; metadata; spatial data models for thematic mapping and map analysis; use of geographic information system in society, government, and business. Practical training with use of advanced software and geographic databases.

Students must pay a $40.00 laboratory materials fee.

0101	Naijun Zhou MW 10:00am - 10:50am F 9:00am - 10:50am *Open to GEOG, GIS, and ENSP-Coastal, Land Use, Global majors or GIS and Remote Sensing minors only.*	Seats (Total: 25) TYD 0117 LEF 1138	 Lab
0102	Naijun Zhou MW 10:00am - 10:50am F 1:00pm - 2:50pm	Seats (Total: 25) TYD 0117 LEF 1136	 Lab
0103	Naijun Zhou MW 10:00am - 10:50am F 3:00pm - 4:50pm	Seats (Total: 25) TYD 0117 LEF 1136	 Lab

GEOG384 **Internship in Geography I**

(Perm req)

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and (ENGL393 or ENGL390). Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional level activities, demands, opportunities. Placement at a public agency, non-profit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 25)
	Contact instructor or department for details.	

GEOG385 Internship in Geography II

(Perm req)

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and must have completed a Junior (Professional) English course. Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional-level activities, demands, opportunities. Placement at a public agency, nonprofit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 25)
	Contact instructor or department for details.	

GEOG398 Special Topics in Geography

(Perm req)

An introductory course dealing with special topics in geography.

Contact department for information to register for this course.

GEOG431 Culture and Natural Resource Management

Credit only granted for: GEOG421 or GEOG431. Formerly: GEOG421.

Basic issues concerning the natural history of humans from the perspective of the geographer. Basic components of selected behavioral and natural systems, their evolution and adaptation, and survival strategies.

0101	Kuishuang Feng	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	LEF 1158

GEOG440 Polar Remote Sensing

Prerequisite: PHYS171 or PHYS161; and AOSC401 or GEOG301; or with permission of instructor. Cross-listed with: AOSC440. Jointly offered with: AOSC642. Credit only granted for: AOSC440, GEOG440, AOSC642, or GEOG640.

The harsh environment of the vast polar regions makes them some of the most inaccessible places on Earth. With widespread environmental change already underway, satellite remote sensing provides the only means by which to obtain year-round observations of the polar climate system. The objective of this course is to provide students with an overview of polar remote sensing techniques, including the physical principles of active and passive sensors, orbits, electromagnetic radiation, atmospheric transmission, calibration and validation. We will focus on measurements of the polar oceans, sea ice, glaciers, ice sheets, snow and permafrost, and examine the response of the cryosphere to climate change.

Cross-listed with AOSC440. Credit only granted for AOSC440 or GEOG440.

0101	Sinead Farrell	Seats (Total: 27)
	TuTh 11:00am - 12:15pm	ATL 2428

GEOG442 **Biogeography and Environmental Change**

Prerequisite: GEOG301. And GEOG201 and GEOG211; or permission of BSOS-Geography department. Jointly offered with GEOG642. Credit only granted for: GEOG642, GEOG442, GEOG447, or GEOG484. Formerly: GEOG4 47.

Biogeographical topics of global significance, including a consideration of measurement techniques, and both descriptive and mechanistic modeling. Topics may include: scale in biogeography, biodiversity, carbon geography, climate and vegetation, interannual variability in the biosphere, land cover, global biospheric responses to climate change, NASA's Mission to Planet Earth and Earth Observation System. The class focuses on both natural and athropogenic controls, impacts of biography on climate and ecosystem services and different methods in biogeography.

0101	George Hurtt	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	LEF 1158

GEOG461 **Machine Learning for Computational Earth Observation Science (CEOS)**

Prerequisite: GEOG371.

Provides an introduction to machine learning methods and models with an emphasis on Earth observation. Topics will include supervised (decision trees, random forest, neural networks, support vector machine, Gaussian process and ensemble techniques), and unsupervised techniques (clustering/segmentation, dimension reduction, multi-dimensional data visualization). The course will highlight the state-of-the-art deep learning models; object-based versus pixel-based image classification; how to deal with missing data and non-uniform coverage of data; and large scale land cover land use mapping from heterogenous satellite data. Practical part will include satellite image classification by applying classification models and biophysical parameters retrieval by applying regression models.

0101	Ruibo Han	Seats (Total: 20)
	MW 2:00pm - 2:50pm Class time/details on ELMs	LEF 1158 ONLINE

GEOG475 **Geographic Visualization and Digital Mapping**

Prerequisite: GEOG373 and GEOG306.

An overview of the basic concepts and techniques that underlie digital map making and the broader field of geographic visualization for intermediate GIS users. This includes the use of color, map symbolization, map layout, and also the contribution to geographic visualization from the fields of scientific visualization, information visualization, and cognition. Fundamentals of dynamic map design and web mapping will be introduced through the use of animated and interactive maps.

Students must pay a $40.00 laboratory materials fee.

0101	Kathleen Stewart MW 3:00pm - 3:50pm F 9:00am - 10:50am	Seats (Total: 24) LEF 1158 LEF 1136	 Lab
0102	Kathleen Stewart MW 3:00pm - 3:50pm F 1:00pm - 2:50pm	Seats (Total: 24) LEF 1158 LEF 1138	 Lab

GEOG498 **Topical Investigations**

(Perm req)

Independent study under individual guidance.

Contact department for information to register for this course.

GEOG601 **The Nature and Practice of Science**

(Perm req)

Restriction: Permission of BSOS-Geography department. Credit only granted for: GEOG601 or GEOG788N. Formerly: GEOG788N.

Introduces students to the nature and practice of science in physical and human geography, including practical methods for research productivity, professional, societal and ethical obligations of scientists, the philosophy of science, and the scientific literature. Students will prepare and critically evaluate research proposals.

0101	Giovanni Baiocchi M 3:00pm - 5:30pm	Seats (Total: 25) LEF 1201	

GEOG608 **Comprehensive Portfolio Assessment Summary**

Evaluation of a PhD student's portfolio.

Contact department for information to register for this course.

GEOG642 **Biogeography and Environmental Change**

Restriction: Permission of BSOS-Geography department. Jointly offered w ith GEOG442. Credit only granted for: GEOG788C, GEOG642, or GEOG442. Formerly: GEOG788C.

Biogeographical topics of global significance, including a consideration of measurement techniques, and both descriptive and mechanistic modeling. Topics may include: scale in biogeography, biodiversity, carbon geography, climate and vegetation, interannual variability in the biosphere, land cover, global biospheric responses to climate change, NASA's Mission to Planet Earth and Earth Observation System. The class focuses on both natural and athropogenic controls, impacts of biography on climate and ecosystem services and different methods in biogeography.

0101	George Hurtt	Seats (Total: 10)	
	TuTh 12:30pm - 1:45pm	LEF 1158	

GEOG652 Digital Image Processing and Analysis

Prerequisite: GEOG579; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in the Geospatial Information Sciences (Graduate Certificate) program.

Digital image processing and analysis applied to satellite and aircraft land remote sensing data. Consideration is given to preprocessing steps including calibration and geo registration. Analysis methods include digital image exploration, feature extraction thematic classification, change detection, and biophysical characterization. One or more application examples may be reviewed.

Students must pay a $40 lab fee.

PGS1	Xin Tao	Seats (Total: 35)	
	Meets August 28, 2023 - November 17, 2023		
	M 5:30pm - 8:00pm	TYD 1108	
	Tu 5:30pm - 8:00pm	TYD 1108	Lab
	Must be in Graduate Programs in Geospatial Information Sciences. Golden ID students are not eligible for this section.		
PLG1	Xin Tao	Seats (Total: 20)	
	Meets August 28, 2023 - November 17, 2023		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online. Golden ID students are not eligible for this section.		

GEOG653 Spatial Analysis

Prerequisite: GEOG579; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in the Geospatial Information Sciences (Graduate Certificate) program.

Methods of spatial analysis including measuring aspects of geometric features and identifying spatial patterns of geospatial objects that are represented as point, line, network, areal data, and 3-D surfaces.

Students must pay a $40 lab fee.

PGS1	Jianguo Ma	Seats (Total: 35)	
	Meets August 28, 2023 - November 17, 2023		
	W 5:30pm - 8:00pm	LEF 1166	
	Th 5:30pm - 7:30pm	LEF 1166	Lab
	Must be in Graduate Programs in Geospatial Information Sciences. Golden ID students are not eligible for this section.		
PLG1	Jianguo Ma	Seats (Total: 25)	
	Meets August 28, 2023 - November 17, 2023		
	W 5:30pm - 8:00pm	ONLINE	
	Th 5:30pm - 7:30pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online. Golden ID students are not eligible for this section.		

GEOG654 GIS and Spatial Modeling

Prerequisite: GEOG653. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in Graduate Certificate: Professional Studies-Geospatial Information Sciences.

Provide foundations and understanding on various issues related to modeling and simulation in GIS context. It will addresses the concepts, tools, and techniques of GIS modeling, and presents modeling concepts and theory as well as provides opportunities for hands-on model design, construction, and application. The focus will be on raster-based modeling. This course is also application-orientated, particularly in these fields such as terrain modeling, LULC modeling, hydrological modeling, suitability modeling, etc.

Students must pay a $40.00 lab fee.

CG03	Jonathan Resop	Seats (Total: 20)	
	Meets August 28, 2023 - December 11, 2023		
	W 5:30pm - 8:00pm	Location: TBA	
	Th 5:30pm - 8:00pm	Location: TBA	Lab

PGS1	Jonathan Resop	Seats (Total: 35)	
	Meets August 28, 2023 - November 17, 2023		
	W 5:30pm - 8:00pm	LEF 1158	
	Th 5:30pm - 8:00pm	LEF 1158	Lab
	Must be in Graduate Programs in Geospatial Information Sciences. Golden ID students are not eligible for this section.		
PLG1	Jonathan Resop	Seats (Total: 25)	
	Meets August 28, 2023 - November 17, 2023		
	W 5:30pm - 8:00pm	ONLINE	
	Th 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online. Golden ID students are not eligible for this section.		

GEOG661 **Fundamentals of Geospatial Intelligence**

Geospatial Intelligence (GEOINT) is the collection, analysis, visualization and dissemination of geospatial information to support decision-making. This course introduces the fundamental knowledge required to become a successful GEOINT practitioner, including the history of the GEOINT discipline, the intelligence applications of remote sensing and Geographic Information Systems (GIS) technologies, and how GEOINT products are used to support national security and humanitarian missions. Upon completion of this course you will understand the roles that technology, policy, doctrine, government, and industry play in shaping the Geospatial Intelligence discipline, and develop the technical knowledge and domain expertise to create basic GEOINT products that provide context for decision makers.

Students must pay a $40.00 laboratory materials fee.

PGS1	Jonathon Hathaway	Seats (Total: 20)	
	Meets August 28, 2023 - November 17, 2023		
	W 5:30pm - 8:00pm	LEF 1106	
	Th 5:30pm - 8:00pm	LEF 1136	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence. Golden ID students are not eligible for this section.		

PLG1	Jonathon Hathaway	Seats (Total: 15)	
	Meets August 28, 2023 - November 17, 2023		
	W 5:30pm - 8:00pm	ONLINE	
	Th 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence, Online. Golden ID students are not eligible for this section.		

GEOG662 Advances in GIS and Remote Sensing

Restriction: Students taking the course must be familiar with data structures, basic GIS and RS concepts, and demonstrate basic understanding of using GIS and RS software. And must be enrolled in Geographical Sciences MPS or graduate certificate program; or permission of BSOS-Geography department.

Focuses on state-of-the-art advances in geographic information science and remote sensing as they support geospatial intelligence. Focus on synergies between GIS and remote sensing in informatics, computer science, and spatial engineering, and their application to problem domains in human systems, physical systems, and cyberspace. Advances in GIS presents recent advances regarding fundamental issues of geo-spatial information science (space and time, spatial analysis, uncertainty modeling and geo-visualization), and new scientific and technological research initiatives for geo-spatial information science (such as spatial data mining, mobile data modeling, and location-based services). Advances in remote sensing will provide opportunity to understand and work with latest developments in the Remote Sensing datasets. The curriculum covers wide range of remote sensing data interpretation and their processing techniques.

Students must pay a $40.00 laboratory materials fee.

PGS1	Ruibo Han	Seats (Total: 35)	
	Meets August 28, 2023 - November 17, 2023		
	M 5:30pm - 8:00pm	LEF 1106	
	Tu 5:30pm - 8:00pm	LEF 1106	Lab
	Must be in Graduate Programs in Geospatial Intelligence. Golden ID students are not eligible for this section.		
PLG1	Ruibo Han	Seats (Total: 25)	
	Meets August 28, 2023 - November 17, 2023		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Intelligence, Online. Golden ID students are not eligible for this section.		

GEOG682 Open Source Intelligence

Open Source Intelligence (OSINT) is information that is publicly available that is collected and analyzed to support decision-making. The collection and analysis of OSINT is often considered to be the first step in developing an all-source intelligence product, where OSINT is fused with Geospatial Intelligence (GEOINT), Signals Intelligence (SIGINT), and Measurement and Signature Intelligence (MASINT), and Human Intelligence (HUMINT). In this course you will learn about the sources, ethics, and methods that are associated with OSINT, and will also develop knowledge and skills related to open-source geospatial technologies and organizations such as the Open Geospatial Consortium (OGC).

Students must pay a $40.00 laboratory materials fee.

PGS1	Mayur Gosai **Meets August 28, 2023 - November 17, 2023** M 5:30pm - 8:00pm Tu 5:30pm - 8:00pm *Must be in Graduate Programs in Geospatial Intelligence. Golden ID students are not eligible for this section.*	Seats (Total: 35) KEY 0100 KEY 0100	 Lab
PLG1	Mayur Gosai **Meets August 28, 2023 - November 17, 2023** M 5:30pm - 8:00pm Tu 5:30pm - 8:00pm *Must be in Graduate Programs in Geospatial Intelligence, Online. Golden ID students are not eligible for this section.*	Seats (Total: 25) ONLINE ONLINE	 Lab

GEOG688M **Selected Topics in GIS; Machine Learning for Computational Earth Observation Science (CEOS)**

Readings and discussion on selected topics in the field of Geographic Information Science (GIS).

0101	Ruibo Han MW 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 10) LEF 1158 ONLINE	

GEOG788 **Selected Topics in Geography**

(Perm req)

Readings and discussion on selected topics in the field of geography.

Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

GEOG788F **Selected Topics in Geography; Deforestation, Land Grab, and Global Commodity Chains**

Readings and discussion on selected topics in the field of geography.

In today's globalized world, final products and consumption are increasingly met by global supply chains that often involve large geographical distances and lead to global environmental change, such as deforestation and other land cover change, all impacting important ecosystem services. This course will explore major trends of commodity trade, existing global trade database, environmental accounting approaches and models, and social and economic drivers of land cover and land use change with regard to land displacement and deforestation.

0101	Kuishuang Feng	Seats (Total: 25)
	Tu 3:30pm - 6:00pm	LEF 1220

GEOG789 **Independent Readings**

(Perm req)

Independent reading as arranged between a graduate faculty member and graduate student.

Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

GEOG790 **Internship in Geography**

Field experience in the student's specialty in a Federal, state, or local agency or private business. Research paper required.

Contact department for information to register for this course.

GEOG797 **Professional Project**

Restriction: Must be in Geospatial Information Sciences (Master's) program.

Data and materials can originate from an internship (internal or external) or from relevant work experience with current employer. Under direction of faculty advisor, students will prepare a project report containing explanation of the requirements for the work, technical account of the activities undertaken, including literature review, description of methods and approaches taken, a critical discussion of results, along with conclusions and recommendations developed from the project. Final project will consist of a full-fledged GIS application that is up and running and can be tested, providing potential employers with a portfolio demonstrating student's ability to manage and develop a GIS application in real world situations.

Students must pay a $40 lab fee.

CG03	Jonathon Hathaway	Seats (Total: 20)	
	Meets August 28, 2023 - December 11, 2023		
	M 5:30pm - 8:00pm	Location: TBA	
	Tu 5:30pm - 8:00pm	ONLINE	Lab

PGS1	Jonathon Hathaway	Seats (Total: 35)	
	Meets August 28, 2023 - November 17, 2023		
	M 5:30pm - 8:00pm	LEF 1158	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence. Golden ID students are not eligible for this section. Students must meet with their program director and apply for graduation prior to registration.		
PLG1	Jonathon Hathaway	Seats (Total: 35)	
	Meets August 28, 2023 - November 17, 2023		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence, online. Golden ID students are not eligible for this section. Students must meet with their program director and apply for graduation prior to registration.		

GEOG798 **Selected Topics in Geography: Seminar Series; Departmental Seminar**

(Perm req)

Readings and discussions on selected topics in the field of geography.

0101	Tatiana Loboda	Seats (Total: 50)
	Th 3:45pm - 5:15pm	ONLINE

GEOG799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

GEOG898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

GEOG899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

GEOL Geology Fall 2023

GEOL100 **Physical Geology**

Credit only granted for: GEOL100 or GEOL120. Additional information: CORE Distributive Studies Physical Science Laboratory Course only when taken concurrently with GEOL 110.

A general survey of the rocks and minerals composing the earth, its surface features and the agents that form them, and the dynamic forces of plate tectonics.

0101	Tracey Centorbi MWF 1:00pm - 1:50pm	Seats (Total: 99) ANS 0408	
0201	Sarah Penniston-Dorland TuTh 2:00pm - 3:15pm	Seats (Total: 99) SKN 0200	

GEOL104 **Dinosaurs: A Natural History**

Dinosaurs, their evolution, and our understanding of their fossil record. Students will examine the geologic record and the tools used by paleontologists to determine: geologic ages and ancient environments; evolutionary history and extinctions; dinosaurian biology and behavior; and their survival as birds. Mechanisms of global change ranging from plate tectonics to asteroid impact will be discussed.

0101	Thomas Holtz MWF 10:00am - 10:50am	Seats (Total: 60) ATL 2324	

GEOL110 **Physical Geology Laboratory**

Prerequisite: Must have completed or be concurrently enrolled in GEOL120 or GEOL100. Additional information: CORE Distributive Studies Physical Science Laboratory Course only when taken concurrently with GEOL 100.

The basic materials and tools of physical geology stressing familiarization with rocks and minerals and the use of maps in geologic interpretations.

0101	Tracey Centorbi, Megan Perry Th 12:30pm - 3:30pm	Seats (Total: 24) GEO 2106	Lab
0102	James Bader, Tracey Centorbi M 12:00pm - 3:00pm	Seats (Total: 24) GEO 2106	Lab
0103	Sourabh Shubham, Tracey Centorbi Tu 12:30pm - 3:30pm	Seats (Total: 24) GEO 2106	Lab
0104	Tracey Centorbi, Tytrice Faison Tu 3:30pm - 6:30pm	Seats (Total: 24) GEO 2106	Lab
0106	Tracey Centorbi, Tytrice Faison W 9:00am - 12:00pm	Seats (Total: 24) GEO 2106	Lab

0107	Tracey Centorbi, Megan Perry W 3:00pm - 6:00pm	Seats (Total: 24) GEO 2106	Lab
0109	Tracey Centorbi, Sourabh Shubham Tu 9:00am - 12:00pm	Seats (Total: 24) GEO 2106	Lab

GEOL120 **Environmental Geology**

Credit only granted for: GEOL100 or GEOL120.

A review of geologic factors underlying many environmental problems and the interactions between population and physical environment: geologic hazards, land-use planning, conservation, mineral resources, waste disposal, land reclamation, and the geologic aspects of health and disease. The course is aimed at lower division students in education and liberal arts, and should be useful to any student concerned with geologic perspectives of environmental problems.

0101	Tracey Centorbi TuTh 12:30pm - 1:45pm M 3:00pm - 3:50pm	Seats (Total: 20) SPH 1303 PLS 1164	Discussion
0102	Tracey Centorbi TuTh 12:30pm - 1:45pm M 4:00pm - 4:50pm	Seats (Total: 20) SPH 1303 PLS 1164	Discussion
0103	Tracey Centorbi TuTh 12:30pm - 1:45pm M 5:00pm - 5:50pm	Seats (Total: 20) SPH 1303 PLS 1164	Discussion
FC01	Tracey Centorbi TuTh 4:30pm - 5:45pm F 9:00am - 9:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 18) PHY 2208 PLS 1158	Discussion
FC02	Tracey Centorbi TuTh 4:30pm - 5:45pm F 10:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 18) PHY 2208 PLS 1158	Discussion

GEOL123 **Causes and Consequences of Global Change**

Cross-listed with: AOSC123. Credit only granted for: AOSC123, GEOG123, or GEOL123.

Study of the major components of Earth's climate system and climate change history. Discussion of 21st century climate change prediction, mitigation and adaptation efforts.

0101	Jeffrey Henrikson MW 4:00pm - 4:50pm F 11:00am - 11:50am	Seats (Total: 30) TWS 0320 SPH 0302	Discussion
0102	Jeffrey Henrikson MW 4:00pm - 4:50pm F 10:00am - 10:50am	Seats (Total: 30) TWS 0320 SPH 0302	Discussion

GEOL124 **Evolution of Life and Environment on Planet Earth**

An exploration of how life has shaped Earth's physical environments, both in the contemporary Earth and over the long course of Earth history. Topics range from evidence for the origin and diversification of life and its impact on Earth environments to the mind-set and methods of the scientists who interpret it, and what those methods tell us about future interactions between life and the environment, both on Earth and in the Solar System.

Restricted to students in Carillon Communities.

0101	James Farquhar TuTh 12:30pm - 1:45pm W 3:00pm - 3:50pm	Seats (Total: 21) ESJ 2204 PLS 1168	Discussion
0102	James Farquhar TuTh 12:30pm - 1:45pm W 4:00pm - 4:50pm	Seats (Total: 20) ESJ 2204 PLS 1168	Discussion
0103	James Farquhar TuTh 12:30pm - 1:45pm W 5:00pm - 5:50pm	Seats (Total: 20) ESJ 2204 PLS 1168	Discussion

GEOL200 **Earth's Fury: Earthquakes, Volcanoes, and Tsunami**

Earthquakes, volcanic eruptions, and tsunami frequently remind us of the dangers associated with living on a constantly changing planet. How do people prepare for these rare but dramatic events? Student will study the science behind earthquakes and volcanoes, how it guides monitoring, forecasting, prevention, and response, and the cultural and ethical aspects of these events.

0101	Megan Newcombe TuTh 9:30am - 10:45am W 3:00pm - 3:50pm	Seats (Total: 20) MMH 1400 PLS 1158	Discussion
0102	Megan Newcombe TuTh 9:30am - 10:45am W 4:00pm - 4:50pm	Seats (Total: 20) MMH 1400 PLS 1158	Discussion

0103	Megan Newcombe TuTh 9:30am - 10:45am W 5:00pm - 5:50pm	Seats (Total: 20) MMH 1400 PLS 1158		Discussion

GEOL212 **Planetary Geology**

Credit only granted for: ASTR330 or GEOL212.

An examination of the geologic and geochemical processes at work in the solar system from the perspectives supplied by space age exploration of the planets and other solar system bodies.

0101	John Merck MWF 9:00am - 9:50am	Seats (Total: 24) ATL 0201	

GEOL341 **Structural Geology**

Prerequisite: GEOL120 or GEOL100; and GEOL102; and GEOL110. Or permission of CMNS-Geology department. Restriction: Permission of instructor is required of non-degree seeking students.

Study of the deformation of Earth's lithosphere, especially stress, rheology, strain, and the origin and significance of structural features. Development of 3-dimensional thinking through drafting and drawing of structures, construction of geologic maps and cross-sections, and stereographic and orthographic representation of structures. Improvement of scientific writing. Two weekend field trips.

0101	Mong-Han Huang TuTh 12:30pm - 1:45pm M 2:00pm - 5:00pm	Seats (Total: 20) BPS 1232 GEO 2117		Lab

GEOL342 **Sedimentation and Stratigraphy**

Prerequisite: GEOL120 or GEOL100; and GEOL110; and GEOL322. And CHEM103; or (CHEM131 and CHEM132); or (CHEM135 and CHEM136). Restriction: Permission of instructor is required of non-degree-seeking students.

Description, origin, and distribution of sediments and sedimentary rocks.

0101	John Merck MWF 1:00pm - 1:50pm Tu 3:30pm - 6:30pm	Seats (Total: 15) PLS 1115 GEO 2107		Lab

GEOL375 **Introduction to the Blue Ocean**

Prerequisite: MATH120 or higher. Recommended: MATH121, MATH141, PHYS161, or PHYS171. Cross-listed with: AOSC375. Credit only granted for: AOSC375 or GEOL375.

The global ocean is a major component of the Earth System that shapes life on earth, including our weather and climate. We explore the observation-based interdisciplinary science of oceanography, identifying its strong connections to related sciences like meteorology, and geography. We apply this developing understanding to environmental issues such as marine pollution, fish and fisheries, as well as to climate variability and to the changes to the marine environment that are resulting from steadily rising levels of atmospheric greenhouse gasses. Focusses include the biogeochemical and physical changes we can observe in the nearby Chesapeake Bay and the coastal waters of Eastern Shore, Maryland.

0101	James Carton MWF 11:00am - 11:50am	Seats (Total: 60) ATL 2324

GEOL393 **Geology Senior Thesis I: Proposal**

(Perm req)

Prerequisite: PHYS141 or (PHYS161 and PHYS174); and MATH141; and (CHEM131 and CHEM132) or (CHEM135 and CHEM136); and must have completed at least two upper-level geology courses and be concurrently enrolled in a third. Restriction: Junior standing or higher; and must be in Geology program.

The first semester of the two-semester Geology Senior Thesis. Emphasis is on developing a plan for original research in the geosciences and presenting that plan both in writing and in public presentations that adhere to geosciences professional standards.

0101	Philip Piccoli W 4:00pm - 6:00pm Contact instructor or department for details.	Seats (Total: 15) CHE 2145

GEOL394 **Geology Senior Thesis II: Research**

(Perm req)

Prerequisite: GEOL393; and must have completed at least three upper level GEOL courses. Restriction: Must be in Geology program; and junior standing or higher.

The second semester of the two-semester Geology Senior Thesis. Investigation of specific original research question in geosciences. Emphasis is on completion of original research proposed in GEOL393 and presentation of results both in writing and in public presentations that adhere to geosciences professional standards.

Contact department for information to register for this course.

GEOL413 **Geoscientific Modeling**

Prerequisite: MATH115; and two 400-level GEOL courses. Recommended: Some experience in computer programming. Restriction: Non-degree-seeking students require the permission of the instructor. Jointly offered with: GEOL613. Credit only granted for: GEOL413, GEOL489G, GEOL613 or GEOL789G. Formerly: GEOL489G.

A model is a simplified representation of reality. Modeling is implicit or explicit in almost everything we do as geoscientists. Model construction, coding, and the concepts of parsimony vs complexity, robustness, validation, uncertainty, and the scientific interpretation of simulation results. Problem sets, independent study and participatory discussion of modeling applications in the current literature.

0101	Michael Evans	Seats (Total: 10)	
	M 10:00am - 12:50pm	PLS 1121	

GEOL423 **Optical Mineralogy**

Prerequisite: GEOL100 or GEOL120; and GEOL110; and GEOL322. And CHEM131 and CHEM132; or (CHEM135 and CHEM136); or CHEM103. Restriction: Non-degree-seeking students require the permission of the instructor.

The optical behavior of crystals with emphasis on the theory and application of the petrographic microscope.

0101	Sarah Penniston-Dorland	Seats (Total: 17)	
	MWF 9:00am - 9:50am	HBK 0109	
	W 10:00am - 1:00pm	GEO 2117	Lab

GEOL436 **Principles of Biogeochemistry**

Prerequisite: MATH120 or MATH140; or must have completed MATH220. And (GEOL100 or GEOL120); and GEOL322. And CHEM131 and CHEM132; or (CHEM135 and CHEM136). Restriction: Non-degree-seeking students require the permission of the instructor. Cross-listed with: AOSC436. Credit only granted for: GEOL436 or AOSC436.

An introduction to the basic principles of biogeochemistry including aspects of organic geochemistry, biochemistry, microbiology, global geochemical cycles, the origin of life and paleoenvironmental evolution.

0101	Alan Kaufman	Seats (Total: 10)	
	TuTh 8:00am - 9:15am	ATL 2316	

GEOL444 **Low Temperature Geochemistry**

Prerequisite: GEOL322, GEOL100, and MATH115. And CHEM103; or (CHEM131 and CHEM132); or (CHEM135 and CHEM136). Restriction: Non-degree-seeking students require the permission of the instructor.

Basic chemical principles, thermodynamics, and kinetics of low-temperature inorganic and organic geochemical reactions in a wide range of surface environments. These geochemical tools will be used to provide a context for understanding elemental cycling and climate change. Laboratories will include problem sets as well as wet chemical and mass spectrometric techniques used in low temperature geochemistry.

0101	Tracey Centorbi	Seats (Total: 12)	
	TuTh 2:00pm - 3:15pm	ATL 1106	
	M 3:00pm - 5:45pm	ESJ 1324	Lab

GEOL446 **Geophysics**

Prerequisite: PHYS141, MATH141, and MATH140; and (GEOL100 or GEOL120). Restriction: Non-degree-seeking students require the permission of the instructor.

An introduction to modern geophysics. Topics include: global plate tectonics, plate motion, triple junctions, geomagnetism, earthquakes and faulting, reflection and refraction seismology, gravity and isostasy, heat flow and mantle dynamics, deep interior of the Earth, geophysical observations and measurements.

0101	Mong-Han Huang	Seats (Total: 23)
	TuTh 11:00am - 12:15pm	HBK 1112

GEOL451 **Groundwater**

Prerequisite: GEOL110 and MATH140; and (GEOL120 or GEOL100); and (CHEM131 and CHEM132; or (CHEM135 and CHEM136); or CHEM103). Or permission of CMNS-Geology department. Restriction: Non-degree-seeking students require the permission of the instructor; and junior standing or higher.

An introduction to the basic geologic parameters associated with the hydrologic cycle. Problems in the accumulation, distribution, and movement of groundwater will be analyzed.

0101	Karen Prestegaard	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	PLS 1158

GEOL452 **Watershed and Wetland Hydrology**

Restriction: Junior standing or higher; and all other students require the permission of the instructor.

Physical processes by which water moves in watershed and wetland systems. Topics include: precipitation, infiltration, flow in the unsaturated zone, streamflow generation processes, and groundwater flow.

0101	Karen Prestegaard	Seats (Total: 39)
	TuTh 3:30pm - 4:45pm	BPS 1236

GEOL453 **Ecosystem Restoration**

Prerequisite: MATH120 or MATH140; or must have completed MATH220. And (CHEM131 or CHEM135); and (CHEM132 or CHEM136); and (GEOL100, GEOL120, or ENST200). Restriction: Junior standing or higher; and permission of instructor is required of non-degree-seeking students. Credit only granted for: GEOL453 or GEOL489L. Formerly: GEOL489L.

Overview of ecosystem functions across biomes/geologic settings, and considerations and tradeoffs in ecosystem restoration strategies. Specific case studies and discussions will be aimed at understanding how structure can influence biophysical and biogeochemical processes supporting ecosystems, and then describes how rates, timing, and location of physical, chemical, and ecosystem processes can be altered by different restoration strategies to enhance ecosystem services.

Jointly offered with MEES698E and GEOL789L.

0101	Sujay Kaushal	Seats (Total: 25)
	Tu 3:30pm - 6:30pm	PLS 1115

GEOL460 **Field Geophysics**

Prerequisite: GEOL100 or GEOL120, MATH140, MATH141, and (PHYS141, PHYS161, or PHYS171). Restriction: Non-degree-seeking students require the permission of the instructor.

Students will become familiar with geophysical instrumentation used for both scientific and industrial applications. Students will be given an introduction to the use of geophysical instrumentation for data collection, processing, and analysis, design of field experiments for investigating field geophysical problems, and an introduction to the theory of instrument design and use. Instruments that will be covered include (but are not limited to): broadband seismometers, geophones, ground-penetrating radar, magnetotellurics, and Global Positioning Satellites.

0101	Jacob Giles, Nicholas Schmerr	Seats (Total: 15)
	M 10:00am - 1:50pm	ATL 1106

GEOL488 **Geology Colloquium; Geology Colloquium**

Contemporary research topics and issues in geosciences are explored through the weekly Geology departmental colloquium and discussion of its contents.

0101	Mengqiang Zhu	Seats (Total: 30)
	F 11:00am - 12:50pm	SYM 0200

GEOL499 **Special Problems in Geology**

(Perm req)

Intensive study of a special geologic subject or technique selected after consultation with instructor. Intended to provide training or instruction not available in other courses which will aid the student's development in his or her field of major interest.

Prerequisites: GEOL100 or GEO120, GEOL110, GEOL102; or equivalent; and permission of department. In addition, non-degree-seeking students require the permission of the instructor. Intensive study of a special geologic subject or technique selected after consultation with instructor. Intended to provide training or instruction not available in other courses which will aid the student's development in his or her field of major interest.

Contact department for information to register for this course.

GEOL613 **Geoscientific Modeling**

Prerequisite: Must have completed MATH115 or equivalent; and any two 400 level GEOL courses, or equivalent. Or permission of instructor. Recommended: Some experience in computer programming will be helpful but not necessary. Restriction: Non-degree-seeking students require the permission of the instructor. Jointly offered with: GEOL413. Credit only granted for: GEOL413, GEOL489G, GEOL613 or GEOL789G. Formerly: GEOL789G.

A model is a simplified representation of reality. Modeling is implicit or explicit in almost everything we do as geoscientists. Model construction, coding, and the concepts of parsimony vs complexity, robustness, validation, uncertainty, and the scientific interpretation of simulation results. Problem sets, independent study and participatory discussion of modeling applications in the current literature.

0101	Michael Evans	Seats (Total: 10)
	M 10:00am - 12:50pm	PLS 1121

GEOL636 **Ecosystem Restoration**

Prerequisite: MATH120 or MATH140; and (CHEM131 or CHEM135); and (CHEM132 or CHEM136); and (GEOL100, GEOL120, or ENST200). Restriction: Equal preference is given to students enrolled in GEOL, MEES, CONS, ENST, AOSC, and civil and environmental engineering graduate programs; and permission of Instructor required for non degree seeking students. Credit only granted for: GEOL453 or GEOL489L. Formerly: GEOL489L.

A further understanding of ecosystem functions across biomes/geologic settings, and developing practical applications in ecosystem restoration strategies through a graduate level project. Specific case studies and discussions will be aimed at understanding how structure can influence biophysical and biogeochemical processes supporting ecosystems, and then describes how rates, timing, and location of physical, chemical, and ecosystem processes can be altered by different restoration strategies to enhance ecosystem services. A project will then be used to apply restoration principles towards solving tangible environmental problems and communication to managers.

0101	Sujay Kaushal	Seats (Total: 25)
	Tu 3:30pm - 6:30pm	PLS 1115

GEOL652 **Advanced Watershed and Wetland Hydrology**

Prerequisite: GEOL452; or permission of CMNS-Geology department. Restriction: Non-degree-seeking students require the permission of the instructor.

Physical and chemical processes in watershed and wetland systems: with an emphasis on redox reactions.

0101	Karen Prestegaard	Seats (Total: 9)
	TuTh 3:30pm - 4:45pm	BPS 1236

GEOL670 **Physical Oceanography**

Prerequisite: Permission of CMNS-Atmospheric & Oceanic Science department; or permission of CMNS-Geology department. Cross-listed with: AOSC670. Credit only granted for: GEOL670, AOSC670 or AOSC420.

Ocean observations. Water masses, sources of deep water. Mass, heat, and salt transport, geochemical tracers. Western boundary currents, maintenance of the thermocline. Coastal and estuarine processes. Surface waves and tides. Ocean climate.

0101	Jacob Wenegrat TuTh 2:00pm - 3:15pm	Seats (Total: 11) ATL 2416
AM01	Jacob Wenegrat TuTh 2:00pm - 3:15pm	Seats (Total: 1) ATL 2416

GEOL688 **Geology Colloquium; Geology Colloquium**

Contemporary research topics and issues in geosciences are explored through the weekly Geology departmental colloquium and discussion of its contents.

0101	Mengqiang Zhu F 11:00am - 12:50pm	Seats (Total: 30) SYM 0200

GEOL789C **Recent Advances in Geology; Principles of Biogeochemistry**

Recent advances in geology research.

0101	Alan Kaufman TuTh 8:00am - 9:15am	Seats (Total: 10) ATL 2316

GEOL789O **Recent Advances in Geology; Chemical Geodynamics**

Recent advances in geology research.

0101	William McDonough MW 3:30pm - 4:45pm	Seats (Total: 10) Location: TBA

GEOL798 **Seminar in Geology**

(Perm req)

Discussion of special topics in current literature in all phases of geology.

Contact department for information to register for this course.

GEOL799 **Master's Thesis Research**
Contact department for information to register for this course.

GEOL898 **Pre-Candidacy Research**
Contact department for information to register for this course.

GEOL899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

GERS German Studies Fall 2023

GERS103 **Intensive Elementary German**

Prerequisite: Must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a fluent/native speaker of German. Credit only granted for: GERS103 or GERM103. Formerly: GERM103.

Covers speaking, reading, writing, listening, and culture of German-speaking world.

0101	Magnus Jensen MWF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 18) JMZ 1224 ONLINE
0201	John Scott MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 18) JMZ 1117 ONLINE

GERS203 **Intensive Intermediate German**

Prerequisite: GERS103; or must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a fluent/native speaker of German. Credit only granted for: GERM203 or GERS203. Formerly: GERM203.

Covers speaking, reading, writing, listening, and culture of German-speaking world.

0101	John Scott MWF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 18) TWS 1310 ONLINE
0201	John Scott MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 18) TWS 1310 ONLINE

GERS204 **German Grammar Review**

Prerequisite: GERS203; or Must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a fluent/native speaker of German. Credit only granted for: GERM204 or GERS204. Formerly: GERM204.

An in-depth study and analysis of selected grammatical topics in a contextualized framework.

0101	Regina Haag TuTh 11:00am - 12:15pm	Seats (Total: 18) JMZ 1117

GERS269A **Special Topics in Study Abroad II; Elementary German I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERS269B **Special Topics in Study Abroad II; Elementary German II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERS301 **Conversation and Composition I: The German-Speaking World**

Prerequisite: GERS204; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM301 or GERS301. Formerly: GERM301.

Practice in contemporary spoken and written German. Systematic review of grammar, and exercises in composition. Emphasis on cultural contrasts in the German-speaking world.

0101	Regina Haag	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	JMZ 1117

GERS302 **Conversation and Composition II: Current Topics in German-Speaking Society**

Prerequisite: GERS301; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM302 or GERS302. Formerly: GERM302.

Further practice in contemporary spoken and written German. Contemporary social, political, and cultural themes.

Contact department for information to register for this course.

GERS322 **Highlights of German Literature and Culture**

Prerequisite: GERS302; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM322 or GERS322. Formerly: GERM322.

Selected literary masterworks, social and cultural issues, and historical events in German-speaking countries from the Enlightenment, Romanticism, Junges Deutschland, Realism, Naturalism and its counter currents, Expressionism to the present. Taught in German.

Taught in German. Cross-listed with GERM322H.

0101	Julie Koser	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 3205

GERS322H **Highlights of German Literature and Culture**

Prerequisite: GERS302; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM322 or GERS322. Formerly: GERM322.

Selected literary masterworks, social and cultural issues, and historical events in German-speaking countries from the Enlightenment, Romanticism, Junges Deutschland, Realism, Naturalism and its counter currents, Expressionism to the present. Taught in German.

Taught in German. Cross-listed with GERM322.

0101	Julie Koser	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 3205

GERS369C **Special Topics in Study Abroad III; German Composition I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERS369D **Special Topics in Study Abroad III; German Composition II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERS369K **Special Topics in Study Abroad III; Introduction to German Literature**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERS369M **Special Topics in Study Abroad III; Europeans and the Middle East: War & Peace, Culture and Exchange, 1798-Present**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERS369P **Special Topics in Study Abroad III; Pop Culture: European-American Trends**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERS386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher. Credit only granted for: GERM386 or GERS386. Formerly: GERM386.

Internship and practicum.

Contact department for information to register for this course.

GERS397H **Honors Reading (Independent Study)**

Credit only granted for: GERM397 or GERS397. Formerly: GERM397.

Supervised reading to be taken normally only by students admitted into honors program.

Contact department for information to register for this course.

GERS402 **Advanced Conversation and Composition**

Prerequisite: GERS302; or students who have taken courses with comparable content may contact the department. Restriction: Must not have completed GERS401 or GERS403. Credit only granted for: (GERM401 and GERM403), GERM402, or GERS402. Formerly: GERM402.

Advanced instruction in and acquisition of written and oral communication skills in German

0101	Regina Haag	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	JMZ 1117

GERS411 **German for International Business I**

Credit only granted for: GERM411 or GERS411. Formerly: GERM411.

Advanced skills in German for international business, including understanding and writing correspondence, reports, graphics, ads, etc., according to current German commercial style.

Contact department for information to register for this course.

GERS436 **The Usual Suspects: Criminals in German Literature and Film**

Prerequisite: GERS320 or GERS322; or permission of instructor. Credit only granted for: GERM436 or GERS436. Formerly: GERM436.

An examination of how historical, cultural and political discourses in German-speaking countries influence social norms and criteria for judging what is considered socially acceptable or "deviant". Texts and films span from the 18th to 21st centuries. Taught in German.

Crosslisted with GERS689J. Credit only granted for GERM436, GERS436, or GERS689J.

0101	Julie Koser	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	PLS 1146

GERS439J **Selected Topics in German Literature; Introduction to the History of the German Language**

Special study of an author, school, genre, or theme. Taught in German.

Contact department for information to register for this course.

GERS499 **Directed Study**

(Perm req)

Student-driven, independent study of a specialized topic in coordination with a faculty advisor.

Contact department for information to register for this course.

GERS689J **Special Topics - M.A. Level; The Usual Suspects: Criminals in German Literature and Film**

M.A.-level study of a literary, linguistic or cultural topic in German studies.

Cross-listed with GERS436. Credit only granted for GERM436, GERS436, or GERS689J. An examination of how historical, cultural and political discourses in German-speaking countries influence social norms and criteria for judging what is considered socially acceptable or "deviant". Texts and films span from the 18th to 21st centuries. Taught in German.

0101	Julie Koser	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	PLS 1146

GERS798 **Master's Independent Study**

German Studies master's independent study.

Contact department for information to register for this course.

GERS799 **Master's Thesis Research**

German Studies master's thesis research.

Contact department for information to register for this course.

GERS888 **Doctoral Independent Study**

(Perm req)

German Studies doctoral independent study.

Contact department for information to register for this course.

GERS898 **Pre-Candidacy Research**

German Studies pre-candidacy research.

Contact department for information to register for this course.

GERS899 **Doctoral Dissertation Research**

(Perm req)

German Studies dissertation research.

Contact department for information to register for this course.

GREK Greek Fall 2023

GREK101 **Elementary Ancient Greek I**

Restriction: A student who has had two units of Greek in high school may register for GREK101 for purposes of review but not for credit.

Study of basic grammar, development of reading facility, and introduction to Athenian life and culture in the fifth century B.C.

Classical and New Testament Greek.

0101	Gregory Bucher	Seats (Total: 10)
	MWF 2:00pm - 2:50pm	ONLINE
	W 1:00pm - 1:50pm	ONLINE

GREK111 **Elementary Modern Greek I**

Restriction: Must not be a native speaker of Greek.

An introduction to the language and culture of modern Greece. Students begin to acquire the basic tools of the language and to communicate, in simple everyday situations. This is the first of our two-semester sequence in Elementary Modern Greek and contributes to the fulfillment of the Global Engagement requirement of the College of Arts and Humanities.

0101	Polyvia Parara	Seats (Total: 15)
	MWF 12:00pm - 12:50pm	MMH 1218

GREK201 **Intermediate Ancient Greek**

Prerequisite: GREK102; or students who have taken courses with comparable content may contact the department.

Advancing beyond the basic skills developed in GREK 101 and GREK 102; review of selected grammatical concepts; continuous reading of passages from Greek literature.

0101	Peter Osorio	Seats (Total: 5)
	MWF 10:00am - 10:50am	HBK 0108
	W 9:00am - 9:50am	HBK 0108

GREK211 **Intermediate Modern Greek I**

Prerequisite: GREK112; or permission of instructor.

A continuation of the study of basic structures and the development of fluency in functional, spoken and written communication. This is the first of our two-semester sequence in Intermediate Modern Greek and contributes to the fulfillment of the Global Engagement requirement of the College of Arts and Humanities.

0101	Polyvia Parara	Seats (Total: 5)
	MWF 10:00am - 10:50am	MMH 1218

GREK398 **Advanced Modern Greek**

Develops advanced communication skills in the modern Greek language: speaking, listening, reading, and writing.

0101	Polyvia Parara	Seats (Total: 5)
	MWF 11:00am - 11:50am	MMH 1218

GREK488P **Greek Readings; .** **PLATO**

The reading of one or more selected Greek authors. Reports.

This advanced undergraduate and graduate Greek seminar will read Plato's Republic 1 and Sophocles' Antigone as sources for "Fifth- century Anarchism." Seminar discussions will concern the original Greek texts and relevant scholarly literature. Primary readings are in ancient Greek.

0101	Peter Osorio M 5:00pm - 7:40pm	Seats (Total: 5) MMH 1218	

GREK499 **Independent Study in Greek Language and Literature**

(Perm req)

Contact department for information to register for this course.

GREK688P **Special Topics in Greek Literature; PLATO**

This advanced undergraduate and graduate Greek seminar will read Plato's Republic 1 and Sophocles' Antigone as sources for "Fifth- century Anarchism." Seminar discussions will concern the original Greek texts and relevant scholarly literature. Primary readings are in ancient Greek.

0101	Peter Osorio M 5:00pm - 7:40pm	Seats (Total: 7) MMH 1218	

GREK699 **Independent Study in Greek Literature**

(Perm req)

Contact department for information to register for this course.

GREK799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

GVPT Government and Politics Fall 2023

GVPT101 **Introduction to Political Science**

A study of the basic principles and concepts of political science.

Contact department for information to register for this course.

GVPT158A **Special Topics in Study Abroad I; The European Union**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT170 **American Government**

A comprehensive study of national government in the United States.

0101	Patrick Wohlfarth MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 0111	 Discussion
0102	Patrick Wohlfarth MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 1102	 Discussion

0103	Patrick Wohlfarth MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 SQH 1101	 Discussion
0104	Patrick Wohlfarth MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 2106	 Discussion
0105	Patrick Wohlfarth MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 2106	 Discussion
0106	Patrick Wohlfarth MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 TYD 1101	 Discussion
0107	Patrick Wohlfarth MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 1114	 Discussion
0108	Patrick Wohlfarth MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 TYD 2109	 Discussion
0109	Patrick Wohlfarth MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) TYD 0130 TYD 0102	 Discussion
FC01	Florian Gawehns MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) TYD 1102	

GVPT200 **International Political Relations**

A study of the major factors underlying international relations, the causes of conflict and cooperation among international actors, the role of international institutions, the interactions of domestic and foreign policies, and major issues in security, economy and the environment.

0101	Connor Kopchick MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 2102	 Discussion

0102	Connor Kopchick MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 2111	Discussion
0103	Connor Kopchick MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 25) TYD 0130 TYD 1132	Discussion
0104	Connor Kopchick MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 1108	Discussion
0105	Connor Kopchick MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 1108	Discussion
0106	Connor Kopchick MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 25) TYD 0130 TYD 2111	Discussion
0107	Connor Kopchick MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 1102	Discussion
0108	Connor Kopchick MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) TYD 0130 TYD 0101	Discussion
0109	Connor Kopchick MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 25) TYD 0130 TYD 0101	Discussion
FC01	Ryan Frazier TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 34) TYD 1102	

GVPT201 **Scope and Methods for Political Science Research**

Credit only granted for: GVPT100 or GVPT201. Formerly: GVPT100.

An introduction to empirical research in political science.

0101	Johanna Birnir	Seats (Total: 25)	
	MW 1:00pm - 1:50pm	ESJ 0215	
	Class time/details on ELMs	ONLINE	
	F 9:00am - 9:50am	HJP 2217	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0102	Johanna Birnir	Seats (Total: 25)	
	MW 1:00pm - 1:50pm	ESJ 0215	
	Class time/details on ELMs	ONLINE	
	F 10:00am - 10:50am	HJP 2217	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0103	Johanna Birnir	Seats (Total: 25)	
	MW 1:00pm - 1:50pm	ESJ 0215	
	Class time/details on ELMs	ONLINE	
	F 1:00pm - 1:50pm	HJP 2217	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0201	Johanna Birnir	Seats (Total: 25)	
	MW 2:00pm - 2:50pm	ESJ 1224	
	Class time/details on ELMs	ONLINE	
	F 9:00am - 9:50am	EDU 2119	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0202	Johanna Birnir	Seats (Total: 25)	
	MW 2:00pm - 2:50pm	ESJ 1224	
	Class time/details on ELMs	ONLINE	
	F 10:00am - 10:50am	EDU 1121	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0203	Johanna Birnir	Seats (Total: 24)	
	MW 2:00pm - 2:50pm	ESJ 1224	
	Class time/details on ELMs	ONLINE	
	F 1:00pm - 1:50pm	EDU 3236	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0204	Johanna Birnir	Seats (Total: 25)	
	MW 2:00pm - 2:50pm	ESJ 1224	
	Class time/details on ELMs	ONLINE	
	F 9:00am - 9:50am	ESJ 1309	Discussion
	Class time/details on ELMs	ONLINE	Discussion

0205	Johanna Birnir	Seats (Total: 25)	
	MW 2:00pm - 2:50pm	ESJ 1224	
	Class time/details on ELMs	ONLINE	
	F 10:00am - 10:50am	ESJ 1309	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0206	Johanna Birnir	Seats (Total: 25)	
	MW 2:00pm - 2:50pm	ESJ 1224	
	Class time/details on ELMs	ONLINE	
	F 1:00pm - 1:50pm	ATL 1114	Discussion
	Class time/details on ELMs	ONLINE	Discussion

GVPT204 **Uncertain Partners: US and China in a Changing World**

Credit only granted for: GVPT204 or GVPT289J. Formerly: GVPT289J.

The rapid ascent of the People's Republic of China (PRC) as a major political and economic power has meant that its relationship with the United States has become central in contemporary international politics. To an increasing extent, some of the biggest global challenges--ranging from nuclear proliferation, to climate change, to economic growth--require U.S.-China cooperation if they are to be managed effectively. Yet the U.S.-China relationship is at times turbulent, and its future remains highly uncertain. Will the U.S. and China be able to forge a closer partnership that will enable them to cooperate in dealing with some of the vexing challenges facing the international community? Or are they more likely to drift toward a more adversarial relationship, as China's growing power--and the US reaction--generate a vicious cycle of mutual mistrust? In this class, students will grapple with these questions as they learn about the history of U.S.-China relations, and about many of the current issues facing the relationship.

0101	Scott Kastner	Seats (Total: 20)	
	MW 1:00pm - 1:50pm	JMZ 0220	
	F 9:00am - 9:50am	KNI 1103	Discussion
0102	Scott Kastner	Seats (Total: 20)	
	MW 1:00pm - 1:50pm	JMZ 0220	
	F 10:00am - 10:50am	KNI 1105	Discussion
0103	Scott Kastner	Seats (Total: 20)	
	MW 1:00pm - 1:50pm	JMZ 0220	
	F 1:00pm - 1:50pm	TYD 1108	Discussion
0104	Scott Kastner	Seats (Total: 20)	
	MW 1:00pm - 1:50pm	JMZ 0220	
	F 9:00am - 9:50am	TYD 0101	Discussion

0105	Scott Kastner MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 20) JMZ 0220 LEF 2166	Discussion
0106	Scott Kastner MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 20) JMZ 0220 LEF 2166	Discussion

GVPT210 **Religions, Beliefs, and World Affairs**

Credit only granted for: GVPT210 or GVPT289L. Formerly: GVPT289L.

Introduces students to an increasingly important question: what is the relationship between religion and politics around the world? For a long period in the 20th Century, religion seemed to be decreasing in importance. Eventually, it was thought, religion would simply go away and secularism, development, and rationality would rule the day. In the last generation, however, events like the Iranian Revolution, the rise of the Christian Right, 9/11, the Tibetan monks protest, the spread of Truth and Reconciliation Commissions, and numerous wars fought in the name of God have brought religion back to prominence in world affairs. In this course, we will explore the contemporary impact of religions on politics around the world, through four broad themes: how to understand religion in politics , the relationship between religion and the state, religious groups as sources of conflict and peace, and contemporary religio-political challenges.

0101	John McCauley MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 20) SHM 2102 TLF 1101	Discussion
0102	John McCauley MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 20) SHM 2102 TLF 1101	Discussion
0103	John McCauley MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SHM 2102 SYM 0209	Discussion
0104	John McCauley MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 20) SHM 2102 TLF 1103	Discussion
0105	John McCauley MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 20) SHM 2102 TYD 2102	Discussion

0106	John McCauley MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SHM 2102 KNI 1103	 Discussion

GVPT217 **Mock Trial**

(Perm req)

Cross-listed with: MLAW217. Credit only granted for: MLAW217, GVPT217, or GVPT319A. Formerly: GVPT319A.

Experience the excitement and reward of arguing, and perhaps winning your client's case in court. Mock Trial is designed for students who are interested in learning practical techniques for shaping the evidence, using the law, and exploiting the courtroom to create a coherent and convincing case theory.

Click here for course permission.

0101	William Mundy W 6:30pm - 9:15pm	Seats (Total: 40) TYD 1114	

GVPT221 **Introduction to Formal Theories of Political Behavior and Politics**

Prerequisite: GVPT170.

An introduction to the theories of rational choice including theories of negotiation and bargaining, elections and voting in democracies, community organizing and the contrast between the roles and performances of government and market.

0101	Piotr Swistak TuTh 3:30pm - 4:45pm	Seats (Total: 25) TYD 1108	

GVPT241 **The Study of Political Philosophy: Ancient and Modern**

Examines some of the salient continuities and breaks between the ancient and modern traditions in Western political philosophy.

0101	Sujith Kumar TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 WDS 0104	 Discussion
0102	Sujith Kumar TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 WDS 0104	 Discussion
0103	Sujith Kumar TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 TWS 0201	 Discussion

	0104	Sujith Kumar TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 EDU 2119	Discussion
	0105	Sujith Kumar TuTh 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 25) LEF 2205 TYD 1108	Discussion
	0106	Sujith Kumar TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 TYD 1114	Discussion
	0107	Sujith Kumar TuTh 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 25) LEF 2205 TYD 0111	Discussion
	0108	Sujith Kumar TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 TYD 2111	Discussion
	FC01	Sujith Kumar TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) TYD 1101	

GVPT258B **Introduction to Political Science Topics in Study Abroad; Enemy Within: Spies and Espionage in the Cold War**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258C **Introduction to Political Science Topics in Study Abroad; Government and Politics in China**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258D **Introduction to Political Science Topics in Study Abroad; Danish Politics and Society**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258E **Introduction to Political Science Topics in Study Abroad; Government and Politics in Spain**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258F **Introduction to Political Science Topics in Study Abroad; European Union Law and Economic Integration**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258I **Introduction to Political Science Topics in Study Abroad; Government and Politics in Italy and Europe**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258N **Introduction to Political Science Topics in Study Abroad; Arms Control in the Nuclear Realm**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258P **Introduction to Political Science Topics in Study Abroad; Sustainable Development: Environmental, Political and Social Issues**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258R **Introduction to Political Science Topics in Study Abroad; Peace and Conflict Honors Seminar II: Regional Conflicts**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258T **Introduction to Political Science Topics in Study Abroad; Terrorism and Political Violence**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT273 **Introduction to Environmental Politics**

An overview of modern environmental philosophy, politics, and policy, exploring environmental politics in the US by way of comparison with other developed and developing countries.

FC01	Matthew Regan MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) TYD 1118	

GVPT280 **The Study of Comparative Politics**

An introduction to the comparative study of politics and governance, including the analytical concepts for studies of politics and a survey of the major types of regimes, including democratic and authoritarian/communist regimes.

0101	Allison Berland TuTh 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 20) ESJ 2204 TYD 1114	Discussion

0102	Allison Berland TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) ESJ 2204 TYD 0102	Discussion
0103	Allison Berland TuTh 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 20) ESJ 2204 TYD 1132	Discussion
0104	Allison Berland TuTh 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 20) ESJ 2204 TYD 2109	Discussion
0105	Allison Berland TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) ESJ 2204 TYD 2109	Discussion
0106	Allison Berland TuTh 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 20) ESJ 2204 TYD 0102	Discussion

GVPT289B **Special Topics in Government and Politics; Globalization**

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289X **Special Topics in Government and Politics; Introduction to European Union**

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT306 **Global Environmental Politics**

Prerequisite: GVPT200. Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations) ; or permission of BSOS-Government & Politics department.

Focus on three processes of international environmental policy development- identifying problems, negotiating solutions, and implementing agreements- through a range of case studies, including global climate change.

Restriction: Must be in Government & Politics program, Government & Politics: International Relations program, or ENSP: Environmental Politics & Policy program.

This is a GVPT Global Learning offering. For more information click here.

0101	Conny Kazungu Sigel, Kainan Gao TuTh 9:30am - 10:45am	Seats (Total: 30) LEF 2166	

GVPT309H **Topics in International Relations; British Politics**

The study of topics in international relations.

Contact department for information to register for this course.

GVPT320 **Advanced Empirical Research**

Prerequisite: GVPT201. Restriction: Must be in Government & Politics or Government & Politics: International Relations program.

Allows students to build on the knowledge of statistical inference they gained from GVPT201. Topics include data collection, data cleaning, data analysis, and data visualization. By the time students complete this class, they will be able to do basic statistical modeling using OLS regression independently.

Students will be required to download statistical package R onto their own laptops and must bring their laptop to every class meeting beginning on October 4.

0101	Candace Turitto TuTh 11:00am - 12:15pm	Seats (Total: 30) TYD 2111	

GVPT354 **International Development and Conflict Management**

Restriction: Sophomore standing or higher; and must be in one of the following minor programs (International Development and Conflict Management; Global Engineering Leadership; Global Poverty, Global Terrorism Studies) or have permission of the Center for International Development, or must be in the Government and Politics major with permission of the Government and Politics department. Additional information: Students enrolled in MIDCM are expected to take the course during the Fall semester after admission to the program.

Serves as the gateway course for the Minor in International Development and Conflict Management. Provides an introductory foundation in the theory and practice of international development and conflict management. Introduces the structures, key players, intersections, and main trends in the evolution of the fields. Explores causal factors that drive economic growth, poverty, inequality, and conflict, as well as the resources, methods, and tools available to track and address these issues.

0101	John McCauley W 2:00pm - 3:40pm F 9:00am - 9:50am *Restricted to students in the #BS02 program.*	Seats (Total: 16) ESJ 2212 EDU 3233	Discussion
0102	John McCauley W 2:00pm - 3:40pm F 10:00am - 10:50am *Restricted to students in the #BS02 program.*	Seats (Total: 16) ESJ 2212 EDU 1107	Discussion

0103	John McCauley W 2:00pm - 3:40pm F 12:00pm - 12:50pm	Seats (Total: 16) ESJ 2212 ARC 1103	Discussion
	Restricted to students in the #BS02 program.		
0104	John McCauley W 2:00pm - 3:40pm F 9:00am - 9:50am	Seats (Total: 9) ESJ 2212 EDU 3233	Discussion
	Open to all majors. Contact MIDCMinfo@umd.edu for permission to register.		
0105	John McCauley W 2:00pm - 3:40pm F 10:00am - 10:50am	Seats (Total: 9) ESJ 2212 EDU 1107	Discussion
	Open to all majors. Contact MIDCMinfo@umd.edu for permission to register.		
0106	John McCauley W 2:00pm - 3:40pm F 12:00pm - 12:50pm	Seats (Total: 9) ESJ 2212 ARC 1103	Discussion
	Open to all majors. Contact MIDCMinfo@umd.edu for permission to register.		

GVPT356 **Capstone in International Development**

(Perm req)

Prerequisite: GVPT354. Restriction: Enrollment is restricted to students in the Minor in International Development and Conflict Management; and sophomore standing or higher; and permission of BSOS-Government & Politics department.

Serves as one of the two capstone courses for the Minor in International Development and Conflict Management. Focuses on advanced theory and the practice and profession of international development and is designed to provide students an introduction to, and a chance to engage with, a core set of practical skills relevant to the field.

0101	Matthew Regan M 2:00pm - 4:45pm	Seats (Total: 31) ESJ 2212	

GVPT358A **Study Abroad Seminar in Political Science; Migration and Multiculturalism in Europe**

The study of topics in political science.

Contact department for information to register for this course.

GVPT358D **Study Abroad Seminar in Political Science; Politics and Economy of Spain**

The study of topics in political science.

Contact department for information to register for this course.

GVPT358F **Study Abroad Seminar in Political Science; Government and Politics in France**

The study of topics in political science.

Contact department for information to register for this course.

GVPT358P **Study Abroad Seminar in Political Science; Political Rhetoric: Blogs, Speeches, and Spin**

The study of topics in political science.

Contact department for information to register for this course.

GVPT358R **Study Abroad Seminar in Political Science; Religion and Politics in Europe**

The study of topics in political science.

Contact department for information to register for this course.

GVPT368B **Special Topics in Government and Politics; The United States and Israel: Likely or Unlikely Allies?**

The study of topics in government and politics.

Cross-listing with ISRL329N. Credit only granted for ISRL329N or GVPT368B. An examination of the U.S. - Israel relationship through historical and thematic lenses. Stretching from the pre-state era through the post-Col War alliance and the intensive U.S. role mediating Arab-Israeli peace, which covers nearly a century of U.S. foreign policy. It will include domestic sources that have shaped U.S. policy, including public opinion and conclude by examining scenarios for increased cooperation and managing tension in the relationship.

0101	Scott Lasensky	Seats (Total: 35)
	W 5:00pm - 7:30pm	TYD 2111

GVPT368D **Special Topics in Government and Politics; Israel: Politics and Society**

The study of topics in government and politics.

Cross-listing with ISRL329C. Credit granted for ISRL329C or GVPT368D. This course will address the main issues in Israeli politics and society by focusing on the role of Zionism in the Jewish state, the institutional foundations of Israeli democracy, the main political parties and blocs and their different ideological principles and visions, as well as the main social groups, movements, and institutions that comprise Israeli civil society.

0101	Ilai Saltzman	Seats (Total: 35)
	MW 11:00am - 12:15pm	HJP 2217

GVPT368F **Special Topics in Government and Politics; Tzahal: The Israeli Military in State, Society, and its Middle Eastern Context**

The study of topics in government and politics.

Crosslisted with ISRL349G. Credit only granted for ISRL349G or GVPT368F This course offers an introduction to general concepts of civil-militar relations with a strong focus on the Israeli case. Situating Israel within the Middle East context, the course readings and class discussions will include comparative references to major regional players, such as Egypt, Turkey, Iran, and the Arab Gulf States. The military is a salient feature of all Middle Eastern states; we will explore how Israel both resembles and differs from other states in the region regarding the role of its military and of civil-military relations.

0101	Marwa Maziad	Seats (Total: 30)
	MW 3:00pm - 4:15pm	ONLINE

GVPT368I **Special Topics in Government and Politics; The Right in Israel: A Historical Examination**

The study of topics in government and politics.

Cross-listed with ISRL349D and HIST328F. Credit only granted for ISRL349D, HIST328F, or GVPT368I. Israel has been moving towards the political Right during the last 30 years, as became obvious in its last election in November 2022. This course explores the history of that movement, beginning before Israel became a state, but focusing primarily on 1967 to the present. No previous knowledge of Israeli history required. Contact the instructor for more information.

0101	Paul Scham	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	JMZ 1103

GVPT368R **Special Topics in Government and Politics; Introduction to Human Rights in Israel**

The study of topics in government and politics.

Cross-listed with ISRL448R. Credit only granted for ISRL448R or GVPT368R. Provides an overview of how the State of Israel deals with human rights of its citizens, and also non-citizens over which it has control. It will introduce Israel s legal system, human rights record, and its methods of dealing with human rights violations, including those impacting the Arab minority in Israel, women's rights, and those of the Palestinians in the Occupied Territories.

0101	Morad Elsana	Seats (Total: 25)
	W 3:00pm - 5:30pm	JMZ 1124

GVPT376 **Applied Field Research in Government and Politics**

Prerequisite: GVPT170. Corequisite: GVPT377.

Students in this course participate as interns in an agency of government or in some other appropriate political organization. Assignments are arranged to provide students with insights into both theoretical and practical aspects of politics. Under the tutelage of the host agency and an academic advisor, students conduct a major research project of mutual interest to the student and his or her host agency in the field of government and politics.

Contact department for information to register for this course.

GVPT377 **Experiential Learning: Government and Politics Internship Program**

(Perm req)

Prerequisite: GVPT170. Credit only granted for: GVPT377 or GVPT388W. Formerly: GVPT388W.

The application of major concepts of political science to the realities of the political process. The course connects internship experiences with larger themes of political science. Students must be admitted to the GVPT Internship Program.

Students interested in registering for this course must have an internship secured and must apply to the GVPT Internship Program. Required in-person class meetings will take place from 6:30pm-9:15pm on the following Wednesdays: September 27th, November 1st, and December 6th.

Click here for more course information.

0101	Victoria Worley	Seats (Total: 40)
	Class time/details on ELMs W 6:30pm - 9:15pm	ONLINE TYD 1118

GVPT386 **Experiential Learning**

(Perm req)

Restriction: Permission of BSOS-Government & Politics department; and junior standing or higher.

Contact department for information to register for this course.

GVPT388 **Topical Investigations**

(Perm req)

Independent research and writing on selected topics in government and politics.

Permission of Director of Undergraduate Studies required.

Contact department for information to register for this course.

GVPT388B **Topical Investigations; Innovation in the Public Sector**

Independent research and writing on selected topics in government and politics.

Prerequisite: PSYC100 or ECON200. Cross-listed with BSOS388F. Credit will be granted for BSOS388F or GVP 388B. Restricted to GVPT majors.

0101	Kenneth Ulman, Bradley Fallon	Seats (Total: 15)
	W 4:00pm - 6:30pm	CHI 2113

GVPT388D **Topical Investigations; Government and Politics of Latin America**

(Perm req)

Independent research and writing on selected topics in government and politics.

This is a GVPT Global Learning offering. This course examines key political, social, and economic policies in contemporary Latin America with an emphasis on Cuba. The course will meet on campus during the Fall semester and then complete a week long trip to Cuba over the 2023 Winter Break. Students must complete both GVPT388D and the Winter Break study abroad GVPT388E.

0101	Carolina Sampo W 2:00pm - 5:00pm	Seats (Total: 20) TYD 1108

GVPT388M **Topical Investigations; Mock Trial**

(Perm req)

Independent research and writing on selected topics in government and politics.

0101	William Mundy W 6:30pm - 9:15pm	Seats (Total: 40) TYD 1132

GVPT389 **Experiential Learning II**

(Perm req)

Experiential credit for working in government & politics related internships, research, and teaching opportunities.

Junior standing.

Contact department for information to register for this course.

GVPT390 **Game Theory**

Restriction: Must not have completed ECON414. Credit only granted for: GVPT399A, GVPT390, CMSC474 or ECON414. Formerly: GVPT399A.

Introduction to game theory with applications to political science, economics and sociology. Topics include preference theory, expected utility theory, Nash equilibria, subgame perfection, repeated games, folk theorems, and evolutionary stability.

0101	Piotr Swistak TuTh 12:30pm - 1:45pm	Seats (Total: 25) TYD 1108

GVPT396 **Introduction to Honors Research**

(Perm req)

Restriction: Must be in Government & Politics Honors Program; and must have permission of the Government & Politics Honors Program.

A required course for all honors students designed to emphasize library research, methodology, and writing skills in political science and political philosophy. A written proposal, bibliography and research design for an honors paper required of all students as a final project.

Contact department for information to register for this course.

GVPT397 **Honors Research**

(Perm req)

Prerequisite: GVPT396. Restriction: Must be in Government & Politics Honors Program.

Individual reading and research. Preparation of an original paper.

Contact department for information to register for this course.

GVPT399C **Seminar in Government and Politics; The Case of Catalonia**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399D **Seminar in Government and Politics; Society and Politics in Contemporary Spain**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399I **Seminar in Government and Politics; Globilization**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399L **Seminar in Government and Politics; British Politics**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399N **Seminar in Government and Politics; Political Movements in the European Union**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399X **Seminar in Government and Politics; Political Movements in the European Union**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT406 **International Organizations**

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher. Or must be in Government & Politics: International Relations program; and junior standing or higher.

A basic introduction to the full range of international organizations that have come into being over the past century and one-half, including those that aspire to be universal or global, those with a geopolitical or regional focus, and those that address specific structural or functional areas of human endeavor or issue areas.

0101	Virginia Haufler	Seats (Total: 30)
	MW 3:00pm - 4:15pm	TYD 1118

GVPT409A **Seminar in International Relations and World Politics; Peace and Conflict Processes**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Recommended Prerequisite: GVPT200. Restriction: Must be in Government & Politics program. How do we conceptualize conflict? Why do armed actors fight and how do they fight? What are the ways in which conflicts end? This course focuses on the central concepts in peace and conflict research and the key theoretical assumptions on the causes, dynamics, and resolution of armed conflict. We begin by examining the root causes of interstate and intrastate conflicts. Close attention will be paid to identifying the armed actors and understanding how they strategically interact with each other. We then turn to the various ways in which armed actors resolve their conflict and achieve peace. We will explore and assess the effectiveness of bilateral and and multilateral approaches of conflict management and the role of third-party actors such as international organizations, mediators, and peacekeepers in bringing about peace.

0101	Hyunki Kim	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TYD 1118

GVPT409G **Seminar in International Relations and World Politics; Corporations and the Global Political Economy**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program. The course will examine corporations as political actors in global politics, analyzing power, norms and governance in different issue areas.

0101	Virginia Haufler	Seats (Total: 75)
	TuTh 2:00pm - 3:15pm	TYD 0117

GVPT409O **Seminar in International Relations and World Politics; The Politics of Climate Change**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200. Restriction: Must be in Government & Politics Program. This seminar surveys the political and normative challenges posed by climate change, drawing on scholarly research, policy texts, and popular media accounts. We will pay particular attention to the multi-level nature of climate policy-making, examining the interation between political processes in sub-national, national, and international arenas.

0101	Jennifer Hadden	Seats (Total: 30)
	W 2:00pm - 4:45pm	TYD 2111

GVPT409U **Seminar in International Relations and World Politics; Politics of Europe and the European Union**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200 or GVPT280. Restriction: Must be in Government & Politics program. This course will serve as an introduction to the politics of contemporary Europe, from the historical conditions that led to the formation of the European Union, through contemporary conflicts over immigration, integration, and emerging challenges to liberal democracy. We will draw on insights from both comparative politics and international relations to analyze the complex power dynamics that shape the politics of the region.

0101	Neil Lund	Seats (Total: 27)
	TuTh 2:00pm - 3:15pm	KNI 1206

GVPT409V **Seminar in International Relations and World Politics; Game Theory And International Security**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT412H **Nonviolent Resistance in the International System**

(Perm req)

Prerequisite: GVPT200. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. Credit only granted for: GVPT409N or GVPT412. Formerly: GVPT409N.

An examination of the major causes, dynamics, and consequences of nonviolent resistance. The course will focus on both theoretical approaches to nonviolence and the scientific study of nonviolence. The course will also explore empirical trends in nonviolent resistance.

Restriction: Must be in Government & Politics Honors Program.

0101	Kathleen Cunningham	Seats (Total: 20)
	TuTh 9:30am - 10:45am	TYD 0111

GVPT417 **Seminar in Advanced Topics in Environmental Policy Analysis**

Prerequisite: GVPT273. Restriction: Must be in one of the following programs (Government & Politics; Environmental Sci&Policy-Env Politics & Policy). Credit only granted for: GVPT419B or GVPT417. Formerly: GVPT419B.

A series of critical tools and methods used to analyze environmental policy. This class should be of interest to students who are either considering a career or graduate studies in environmental protection.

0101	Conny Kazungu Sigel, Kainan Gao	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	LEF 2166

GVPT423 Elections and Electoral Behavior

Prerequisite: GVPT241 and GVPT170. Restriction: Must be in Government & Politics program.

An examination of various topics relating to elections; the focus includes the legal structure under which elections are conducted, the selection and nomination process, the conduct of election campaigns, and patterns of political participation and voting choice in different types of elections.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program.

0101	James Gimpel	Seats (Total: 30)
	Tu 2:00pm - 4:45pm	TYD 0101

GVPT429B Problems in Political Behavior; Data Analysis for Political Behavior

The problem approach to political behavior with emphasis on theoretical and empirical studies on selected aspects of the political process.

Prerequisite: GVPT320. Restriction: Must be in Government & Politics program. This course provides an opportunity to think about and to practice the most common statistical methods for doing research on political behavior. A major goal of this course is to provide practice with quantitative methods you have learned in earlier classes and offer additional exposure to statistical software used commonly by employers. Most importantly, the course will provide students with more exposure to what quantitative research on political behavior looks like, how to construct theories, how to assemble evidence, and how to relate theories and evidence through empirical testing.

0101	James Gimpel	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	LEF 0227

GVPT429J Problems in Political Behavior; Digital Dictatorships

The problem approach to political behavior with emphasis on theoretical and empirical studies on selected aspects of the political process.

Prerequisite: GVPT320. Restriction: Must be in Government and Politics program. This course explores the digital strategies used by dictatorial regimes as well as the digital data and methodology scholars use to understand autocratic politics. Students will pursue a semester-long project of their choosing.

0101	Fiona Shen-Bayh	Seats (Total: 15)
	MW 2:00pm - 3:15pm	TWS 0234

GVPT429K **Problems in Political Behavior; Researching Contentious Politics**

The problem approach to political behavior with emphasis on theoretical and empirical studies on selected aspects of the political process.

Prerequisite: GVPT201. Restriction: Must be in Government & Politics program. This course will critically assess empirical research on the causes and consequences of contentious politics behaviors such strikes, riots, peaceful protests, and insurrections with a particular focus on efforts to address these questions using quantitative methods. Topics we will address throughout the course include: why some protest campaigns succeed while others fail, the role of social media in coordinating demonstrations, and the impact of riots on public opinion and government policy.

0101	Neil Lund	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	KNI 1206

GVPT429T **Problems in Political Behavior; Social Media Politics**

The problem approach to political behavior with emphasis on theoretical and empirical studies on selected aspects of the political process.

Prerequisite: GVPT320. Restriction: Must be in Government & Politics program. This seminar presents students with an integrated view of media politics, combining political psychology, computational social science, and network analysis. The goal is to provide students with the technical know-how to work with social media data and the knowledge to interpret relevant information. In this seminar, students will learn to process social media data, program survey experiments, and identify political narratives in a multiplatform environment. The seminar will introduce students to the computational techniques required for big social media data analyses.

0101	Ernesto Calvo	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TYD 2109

GVPT431 **Introduction to Constitutional Law**

Prerequisite: GVPT170 and GVPT331. Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations) ; and junior standing or higher.

A systematic inquiry into the general principles of the American constitutional system, with special reference to the role of the judiciary in the interpretation and enforcement of the federal constitution.

Jointly offered with MLAW358X. Credit only granted for GVPT431 or MLAW358X.

0101	Martin Kobren	Seats (Total: 70)
	MW 2:00pm - 3:15pm	SQH 1120

GVPT439C **Seminar in Public Law; Current Issues in the Supreme Court**

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT331 or GVPT202. Recommended prerequisite: GVPT431 or GVPT 432. Restriction: Must be in Government & Politics program or Government & Politics: International Relations programs. Credit only granted for GVPT439C or MLAW358c. This course will focus on the role of the Supreme Court in interpreting and applying the Constitution.

0101	Michael Spivey	Seats (Total: 40)
	MW 1:00pm - 2:15pm	TYD 1114

GVPT439I **Seminar in Public Law; American Economic Inequality and the Law**

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program. The United States has one of the highest levels of economic inequality in the developed world. While some level of economic inequality is inherent and even desirable in a capitalistic economy, many scholars believe that the level of inequality that prevails in the United States erodes generalized levels of trust, poisons interpersonal relationships, and ultimately makes it far more difficult to govern a democratic society. This course examines the roots of American economic inequality, with a tight focus on how laws adopted through democratic processes have resulted in a huge transfer of wealth from the hands of the many to the hands of the few.

0101	Martin Kobren	Seats (Total: 30)
	MW 11:00am - 12:15pm	PLS 1113

GVPT439M **Seminar in Public Law; Moot Court**

(Perm req)

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT439L or permission of the instructor. To request permission for this course, contact Professor Michael Spivey at mspivey@umd.edu. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. This is your chance to argue a case before the Supreme Court. (Well, Not THE Supreme Court but a moot Supreme Court.) In Moot Court, students argue a hypothetical constitutional law case before a panel of experienced lawyers and jurists. Students will learn the skills of written and oral advocacy in anticipation of participation in the American Moot Court Association regional and national competitions. No prior experience in appellate advocacy is necessary.

0101	Michael Spivey	Seats (Total: 20)
	MW 3:00pm - 4:15pm	TYD 0111

GVPT439N **Seminar in Public Law; Moot Court II**

(Perm req)

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Prerequisite: : GVPT439M and permission of the instructor. To request permission for this course, contact Professor Michael Spivey at mspivey@umd.edu.

0101	Michael Spivey	Seats (Total: 15)
	MW 3:00pm - 4:15pm	TYD 0111

GVPT443 **Contemporary Political Theory**

Prerequisite: GVPT241. Restriction: Must be in Government & Politics program.

A survey of the principal political theories and ideologies set forth in the works of writers from Karl Marx to the present.

Contact department for information to register for this course.

GVPT445H **Marxism and Postmarxism**

(Perm req)

Restriction: Must be in a major within BSOS-Government & Politics department.

The study of Marxist thought and an assessment of the critical transformations and reassessments of the theory and practice of Marxism.

Restriction: Must be in Government & Politics Honors Program.

0101	Vladimir Tismaneanu	Seats (Total: 20)
	Th 2:00pm - 4:45pm	TYD 0101

GVPT449D **Seminar in Political Philosophy; Individual and Group Decision-Making**

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: Inter national Relations program. Credit granted for PHPE400 or GVPT449D. Foundational issues that arise within the theories of rational choice that underlie the treatments of decision-making found in economics, politics, and the other social sciences. The course is focused on individual decisions (rational choice theory), strategic decisions (game theory) and group decisions (social choice theory). In addition to presenting the formal models of decision making, we also discuss to what extent these mathematical theories explain social interactions. An important aspect of the course is to introduce students to the ways in which economic analysis has been applied to issues in social and political philosophy. Readings will be drawn from the literature in economics, psychology, statistics and political science, as well as philosophy.

0101	Eric Pacuit MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 2) TWS 1100 TLF 1103	Discussion
0102	Eric Pacuit MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 2) TWS 1100 PLS 1119	Discussion
0103	Eric Pacuit MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 2) TWS 1100 KNI 1105	Discussion

GVPT459B **Seminar in Comparative Politics; Comparative Political Institutions**

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT280 or GVPT282. Restriction: Must be in Government & Politics program. This course provides a general introduction to comparative political institutions. It explores basic political concepts that relate to issues of representation, elections, and congresses.

0101	Youngjoon Lee TuTh 12:30pm - 1:45pm	Seats (Total: 30) TYD 2109	

GVPT459C **Seminar in Comparative Politics; Race and Ethnic Politics in Comparative Perspective**

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This course examines the multiple ways in which race and ethnicity become meaningful categories shaping political behavior. We will examine how race and ethnicity are socially constructed, why peopleaccept (and sometimes reject) the categories imposed on them, and how categories and identities become drivers of political behavior. The course takes a comparative perspective on identity politics, looking at cases from multiple regions around the world.

0101	Marcus Johnson TuTh 9:30am - 10:45am	Seats (Total: 40) TYD 0101	

GVPT459D **Seminar in Comparative Politics; Democracy and Democratization**

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT280 or GVPT282. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. This course surveys the big debates about the nature of democracy and democratization. The course is organized around five broad themes: 1) core concepts and definitions of democracies and non-democratic regimes, 2) the nature and causes of democratization, 3) democratic principles, 4) democratic forms and institutional variation, and 5) contemporary issues in democratic politics, including democratic backsliding. Throughout the course, we will be exploring how these different elements of democracy exist around the world by using cases from Europe, Asia, the Middle East and the United States.

0101	Allison Berland TuTh 12:30pm - 1:45pm	Seats (Total: 30) TYD 1118

GVPT459M **Seminar in Comparative Politics; Social Movements**

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200 or GVPT280. Restriction: Must be in Government & Politics program. Discussion-intensive advanced seminar exploring the ways that social movements mobilize, the role of governments and bystanders in shaping that process, and the outcomes that they produce through connecting history, theory, and scholarship to contemporay politics. Special topics include youth movements and campus activism, transnationalism, and violent vs. non-violent strategies.

0101	Jennifer Hadden MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 30) TYD 1114 ONLINE

GVPT459X **Seminar in Comparative Politics; Political Radicalism: Comparing Communism and Fascism**

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program. This course will examine the main similarities and distinctions between communist and fascist radical ideologies, movements, and political systems. The course will highlight the centrality of ideology in totalitarian experiments and the relationship between ideology and terror as underpinnings of the ideocratic despotisms. We will explore contemporary implications of totalitarianism.

0101	Vladimir Tismaneanu TuTh 11:00am - 12:15pm	Seats (Total: 30) TYD 1102

GVPT459Y **Seminar in Comparative Politics; Comparative Political Ideology**

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Recommended Prerequisites: GVPT280 and GVPT282. Restriction: Must be in Government & Politics program. A comparative survey of leading political ideologies, including their origins, core tenets, and implications. Specific attention is given to ideology's relationship to material practice, both western and non-western interpretations, and ramifications for contemporary politics. Includes nationalism, populism, religious fundamentalism, liberalism, socialism, and neoliberalism, among other influential ideologies.

0101	Calvert Jones	Seats (Total: 30)
	MW 2:00pm - 3:15pm	TYD 2102

GVPT473H **The U.S. Congress**

(Perm req)

Prerequisite: GVPT241 and GVPT170. Restriction: Junior standing or higher. And must be in Government & Politics program; or must be in Government & Politics: International Relations program.

A detailed survey of lawmaking and the legislative process, emphasizing the U.S. Congress, and its members.

Restriction: Must be in Government & Politics Honors Program.

0101	Kristina Miler	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TYD 0111

GVPT474 **Political Parties**

Prerequisite: GVPT241 and GVPT170. Restriction: Must be in Government & Politics program.

A descriptive and analytical examination of American political parties, nominations, elections, and political leadership.

0101	David Karol	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 2109

GVPT479E **Seminar in American Politics; Grassroots Engagement for Political Change**

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT170. Restriction: Must be in Government and Politics program. In this course, students will learn how grassroots movements impact political outcomes and how to engage the public in order to make political change. Students will understand and execute a grassroots stakeholder analysis that identifies family, friends, foes, and strangers in an advocacy campaign. We will also cover the three types of grassroots advocacy: community advocacy, legislative advocacy, and grassroots in electoral campaigns. Students will learn how the use of data, technology, and messaging can have an impact on the outcome of a campaign.

0101	Amelia Meli	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	ESJ 2309

GVPT479G **Seminar in American Politics; Interest Groups and Social Movements**

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program. This course focuses on interest groups and social movements as important forces in American politics that provide ways for citizens to affect public policy.

0101	Kristina Miler	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TYD 1132

GVPT479W **Seminar in American Politics; Hidden Figures: Women of Color in Politics**

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT170. Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This course explores the significant role that women of color have played in American politics. Using an intersectional lens, we criticallyengage biographical, autobiographical, and historical works that give voice to the political experiences of individual women of color. We broaden the notion of "politics" to be inclusive of women of color that are close confidants of male political figures (first ladies,wives, and "mistresses"), revolutionaries, activists, as well as those that serve in formal political positions (elected officials, politicians, and justices). Finally, we grapple with the impact of public policy on the lives of women of color.

0101	Chryl Laird	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 1132

GVPT482 **Government and Politics of Latin America**

Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program.

A comparative study of the governmental systems and political processes of the Latin American countries.

Contact department for information to register for this course.

GVPT484 **Government and Politics of Africa**

Prerequisite: GVPT282 or GVPT280. Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations).

A comparative study of the governmental systems and political processes of the African countries, with special emphasis on the problems of nation-building in emergent countries.

0101	John Derks, Conny Kazungu Sigel TuTh 11:00am - 12:15pm	Seats (Total: 30) LEF 2166

GVPT485 **Government and Politics of the Middle East**

Prerequisite: GVPT200; and (GVPT282 or GVPT280). Restriction: Must be in Government & Politics program. Credit only granted for: GVPT485 or GVPT459E. Formerly: GVPT459E.

A comparative study of the governmental systems and political processes of Middle Eastern countries, with special emphasis on the problems of nation-building in emergent countries.

This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide virtual opportunities for global engagement. Global Classrooms can range from embedded experiences to immersive, project-based collaboration. Learn more about Global Classrooms: go.umd.edu/gc-umd.

Contact department for information to register for this course.

GVPT600 **Professionalization Seminar in Political Science**

Restriction: Must be in Government and Politics (Doctoral) program.

An introduction to the practices, norms, and expectations of professional political science.

0101	Ernesto Calvo, Kathleen Cunningham Th 11:00am - 12:00pm	Seats (Total: 12) TYD 1111

GVPT601 **Research Design for Political Analytics**

Restriction: Must be in the Applied Political Analytics Master of Science program; or permission of department.

A graduate-level introduction to empirical research techniques used in political science. The course covers different approaches to answering empirical research questions and addresses the strengths and limitations of different research decisions. Students who successfully complete the course will be able to conceptualize and design an empirical research project, as well as evaluate the research designs used in the research projects conducted by other social scientists.

0101	Richard Engstrom W 6:00pm - 8:45pm	Seats (Total: 15) ONLINE
PCA1	Richard Engstrom W 6:00pm - 8:45pm	Seats (Total: 10) ONLINE *Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.*

GVPT604 **Introduction to War and Armed Conflict in World Politics**

(Perm req)

Recommended: GVPT200. Restriction: Must be in the MA in International Relations program; or permission of Government and Politics department.

Examines major theories of both international and civil wars and reviews major empirical studies that test theories of conflict. The topics include the onset of armed conflict, the duration and outcomes of wars, and the durability of peace in the aftermath of wars. The focus is on developing an understanding of central debates in the literature and primary empirical findings from quantitative and cross-national analyses that are of policy relevance.

0101	Deniz Cil W 2:00pm - 4:45pm	Seats (Total: 30) SPH 0302	
PCR1	Deniz Cil W 2:00pm - 4:45pm	Seats (Total: 12) SPH 0302	
	Must be in the International Relations (MA) program. Golden ID students are not eligible for this section.		

GVPT622 Quantitative Methods For Political Science

Introduction to quantitiative methods of data analysis, with emphasis on statistical methods and computer usage. Measures of association, probability, correlation, linear regression estimation techniques, introductory analysis of variance, and use of package computer programs.

0101	David Cunningham M 12:30pm - 3:15pm F 3:00pm - 5:00pm	Seats (Total: 12) TYD 1111 LEF 0227	 Discussion
PCR1	Jacob Aronson F 11:00am - 1:45pm Tu 10:00am - 12:00pm	Seats (Total: 40) TYD 2102 TWS 0207	 Discussion
	Must be in the International Relations (MA) program. Golden ID students are not eligible for this section.		

GVPT628 Advanced Topics in Coding for Political Analysis

Students will explore advanced statistical software relevant to political data analysis. Specific topics may include Python, SQL, and GIS, among others. Provides students with advanced programming and coding skills valuable to employers, and expands abilities beyond R.

0101	Neil Lund Tu 6:00pm - 8:45pm	Seats (Total: 20) TYD 1114

PCA1	Neil Lund Tu 6:00pm - 8:45pm	Seats (Total: 15) TYD 1114
	Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

GVPT635 **Public Opinion**

Restriction: Must be in the Applied Political Analytics Master of Science program; or permission of department.

Investigate how citizens in a democracy think about politics, form attitudes, and how public opinion shapes and is shaped by the political environment. While being exposed to core debates in public opinion and the study of public opinion, students will use a number of surveys that have been central to advancing our knowledge of public opinion.

PCA1	Candace Turitto W 5:00pm - 7:45pm	Seats (Total: 10) WDS 1131
	Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

GVPT708A **Seminar in International Relations Theory; International Relations Theory**

An examination of the major approaches, concepts, and theories in the study of world politics with special emphasis on contemporary literature.

0101	Scott Kastner Tu 9:30am - 12:15pm	Seats (Total: 12) TYD 1136
0201	Hyunki Kim Th 2:00pm - 4:45pm	Seats (Total: 15) TWS 1310
	Restricted to students in the MAIR combined BA/MA program.	
PCR1	Hyunki Kim Th 2:00pm - 4:45pm	Seats (Total: 40) TWS 1310
	Must be in the International Relations (MA) program. Golden ID students are not eligible for this section.	

GVPT729A **Special Topics in Quantitative Political Analysis; Advanced Maximum Likelihood Estimation**

An intensive examination of special topics in quantitative methods of political analysis in such areas as survey research methods, exploratory data analysis, advanced data management techniques, or advanced methods of policy analysis.

0101	Michael Hanmer Tu 9:30am - 12:15pm	Seats (Total: 12) TYD 1111

GVPT729B **Special Topics in Quantitative Political Analysis; Applied Social Data Science**

An intensive examination of special topics in quantitative methods of political analysis in such areas as survey research methods, exploratory data analysis, advanced data management techniques, or advanced methods of policy analysis.

0101	Ernesto Calvo, Johanna Birnir Th 1:00pm - 3:45pm	Seats (Total: 12) TYD 1136

GVPT761 **International Political Economy**

Recommended: GVPT708.

Major issues in international political economy including such matters as the monetary system, trade, debt, and development.

0101	Todd Allee W 12:30pm - 3:15pm	Seats (Total: 12) TYD 1136
PCR1	Guan Wang M 2:00pm - 4:45pm *Must be in the International Relations (MA) program. Golden ID students are not eligible for this section.*	Seats (Total: 40) TYD 2109

GVPT770 **Seminar in American Political Institutions**

This is the core institutions seminar in American politics. The course surveys the primary literature in the field and addresses substantively significant topics related to the study of political institutions in the American context.

0101	David Karol Th 12:30pm - 3:15pm	Seats (Total: 12) TYD 1111

GVPT799 **Master's Thesis Research**
Contact department for information to register for this course.

GVPT803 **Seminar in International Political Organization**

Restriction: Must be in Government and Politics PhD program.

An overview and critical analysis of contemporary theory on international organizations and global governance.

PCR1	Deniz Cil Tu 2:00pm - 4:45pm *Must be in the International Relations (MA) program. Golden ID students are not eligible for this section.*	Seats (Total: 30) TWS 1310

GVPT828B **Selected Problems in Political Behavior; Race and Ethnic Politics**

Individual reading and research reports on selected problems in the study of political behavior.

0101	Chryl Laird	Seats (Total: 12)
	Tu 2:00pm - 4:45pm	TYD 1111

GVPT849 **Readings in Government and Politics**

(Perm req)

Guided readings and discussions on selected topics in political science.

Contact department for information to register for this course.

GVPT888I **Selected Topics in Comparative Governmental Institutions; The Politics of Identity**

An examination of special topics in comparative politics.

0101	Johanna Birnir, Marcus Johnson	Seats (Total: 12)
	Tu 1:00pm - 3:45pm	TYD 1136

GVPT898 **Pre-Candidacy Research**

Guided readings and discussions on selected topics in political science.

Contact department for information to register for this course.

GVPT899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

HACS ACES-Cybersecurity Fall 2023

HACS100 **Foundations in Cybersecurity I**

Restriction: Must be a first-semester student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Interdisciplinary foundational course of the ACES program. Through lectures, lab activities, and discussions, students will learn and practice various aspects of cybersecurity. Weekly technical lectures will introduce students to the operating system UNIX. Students will partner with the Division of Information Technology in a project to engage the University of Maryland community in a cyber-hygiene and cyber-ethics campaign based on the concepts learned in class.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Exper ience for Students) Living-Learning Program.

0101	Michel Cukier, Mohammad Islam	Seats (Total: 35)
	M 9:00am - 9:50am	PFR 1111
	W 9:00am - 9:50am	PFR 1111

0201	Mohammad Islam, Michel Cukier M 10:00am - 10:50am W 10:00am - 10:50am	Seats (Total: 35) PFR 1111 PFR 1111
0301	Michel Cukier, Mohammad Islam M 11:00am - 11:50am W 11:00am - 11:50am	Seats (Total: 35) PFR 1111 PFR 1111

HACS200 Applied Cybersecurity Foundations II

Prerequisite: Minimum grade of C- in HACS101. Restriction: Must be a third-semester student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Students will apply the skills learned in HACS 100 and 101 to practice cybersecurity research through team led projects employing honeypots, carrying that project through all stages - proposal, implementation, and analysis. Weekly lectures will supplement project work by addressing trends observed in honeypot attacks and protections needed, along with data collection and analysis tools, and other foundational cybersecurity concepts.

Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

0101	Michel Cukier TuTh 2:00pm - 2:50pm	Seats (Total: 42) PHY 4311
0201	Michel Cukier TuTh 3:30pm - 4:20pm	Seats (Total: 42) PHY 4311

HACS201 Introduction to UNIX

Restriction: Must be a first-year student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program. Credit only granted for: HACS201 or CMSC216. Additional information: Required course for students who have not completed the ACES Living-Learning Program or taken CMSC216.

Introduction to the operating system UNIX through lectures and hands-on assignments.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	Bertrand Sobesto Th 5:30pm - 6:20pm	Seats (Total: 26) PHY 4311

HACS208N Digital Forensics

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Explores the various fields of digital forensics, such as memory, hard drive, and network traffic analysis. This course covers the legalities involved with forensic investigations and the wide variety of digital forensics tools, including both open source and proprietary. This course includes the different types of forensic artifacts that can be acquired and analyzed and review the careers and certifications relevant to the field.

0101	Denzel Prince W 4:00pm - 6:45pm	Seats (Total: 24) PFR 1111

HACS208P **Beyond Technology, the Policy Implications of Cyberspace**

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Explores the key issues facing policy makers attempting to manage the problem of cybersecurity from its technical foundations to the domestic and international policy considerations surrounding governance, response, and critical infrastructure risk management. The course is designed for students with little to no background in information technology, and will provide the principles to understand the current debates shaping a rapidly evolving security landscape.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living Learning Program.

0101	Charles Harry TuTh 11:00am - 12:15pm	Seats (Total: 25) PFR 1111

HACS279 **Undergraduate Research in Cybersecurity**

(Perm req)

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS287 **Undergraduate Research in Cybersecurity**

(Perm req)

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program; and permission of UGST-HCOL-ACES Cybersecurity Program.

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS297 **Cybersecurity Experience Reflection**

(Perm req)

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program; and permission of UGST-HCOL-ACES Cybersecurity Program.

Cybersecurity experience is defined as an experiential learning activity either with a University of Maryland entity (such as the Division of Information Technology, the ACES competition team or in an ACES outreach program), or with an external organization that will provide valuable, hands-on experience to supplement the knowledge learned in the other ACES coursework.

Permission of department required.

0101	Sarah Herberger TuTh 12:30pm - 1:45pm	Seats (Total: 25) PFR 1111

HACS408L **Analytical and Forensic Techniques for Cybersecurity**

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

Explores forensic artifacts contained in digital devices, security mechanisms available to protect digital devices and mechanisms available to cybersecurity professionals for analysis of digital devices. Topics include file structure and recovery of IoT and cell phone forensic data, network data capture and analysis, enterprise mobile device management analysis and forensic investigation of digital devices (IoT, telematics systems, etc.) that interact with cell phone and other devices. Incident response, timeline analysis, and detection and analysis of artifacts will be explored in a hands-on and lab-centric course using a variety of open-source tools and commercial cloud services.

Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	Denzel Prince M 5:00pm - 7:45pm	Seats (Total: 26) PHY 4311B

HACS408M **Introduction to Cyber Threats and Risk Management**

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

Provides an exploration of cyber risk management and present-day cyber threats, their impacts, and their mitigations. Students will take a multi-disciplinary approach to understanding threats and risks including the technical, policy, and social aspects. This course is guided by real-world cyber threats and examples.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	John McGahagan Tu 5:30pm - 8:15pm	Seats (Total: 26) PHY 4311

HACS408O **Internet of Things Security**

(Perm req)

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

This increasingly interconnected world brings a need for understanding cybersecurity challenges associated with embedded devices and systems. This course will expose students to topics in Internet of Things (IoT) and Cyber Physical System (CPS) device types, IoT/CPS threat categories, security services, distributed networking, activity privacy, and intrusion detection for embedded environments. In addition to individual homework assignments, students will participate in a semester long group project involving research, design, and implementation.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program and course will need a permission stamp for students to register.

0101	Priyanka Ranade W 5:00pm - 7:45pm	Seats (Total: 26) ONLINE

HACS479 **Undergraduate Research in Cybersecurity**

(Perm req)

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS497 **Cybersecurity Experience Reflection**

(Perm req)

Prerequisite: Students may enroll concurrently with or after completing a cybersecurity related internship experience of at least 135 hours. Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program; and must not have taken HACS297. Credit only granted for: HACS297 or HACS497.

Cybersecurity experience is defined as an experiential learning activity either with a University of Maryland entity or with an external organization that will provide valuable, hands-on experience to supplement the knowledge learned in other ACES coursework. This course is intended to help students reflect on their cybersecurity experience and to learn from others' cybersecurity experiences. It is also intended to help students gain professional skills that will aid in their future career.

0101	Cassandra Harrington TuTh 12:30pm - 1:45pm	Seats (Total: 25) PHY 4311B

HACS498 **Cybersecurity Group Problem Solving**

(Perm req)

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in team problem solving activities in order to gain greater insight into a specific area within cybersecurity and to obtain an appreciation for the subtleties and difficulties associated with these activities in order to prepare students for graduate school and the workforce. Students engage in a semester long problem solving or development project under the mentorship of a industry specialist and with the guidance of university faculty. Through the exercise the students will develop teamwork experience and professional communication skills in addition to experience of the project itself. The project might be evaluation, creation, testing or analysis of some area of cybersecurity as needed by the mentor-sponsor. A contract of what will be accomplished is required must be agreed upon by the mentor, the student and the ACES leadership before the project can begin.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	Thomas Woods Contact instructor or department for details.	Seats (Total: 9)
0201	Elizabeth Walden Contact instructor or department for details.	Seats (Total: 8)
0301	Michael Lehrschall Contact instructor or department for details.	Seats (Total: 11)

HBUS Interdisciplinary Business Honors Fall 2023

HBUS100 **The Future of Work: Interdisciplinary Foundations and Horizons of Business**

What should the future of work look like? Traditional hierarchies have come under increased scrutiny today for many reasons especially because it may not promote diversity, equity, and inclusion in the workplace. Moreover, they may not encourage experimentation, innovation, and business success. Not surprisingly then, companies are redefining what the future of work should look like. What are the shared responsibilities of an employer and employee? How can technology improve productivity and promote equity? What culture should businesses promote to welcome all employees and ensuring accountability? This course will address these and related questions.

0101	Joseph Bailey TuTh 9:30am - 10:45am	Seats (Total: 65) VMH 1412

HBUS200 **Business and Deliberation: Innovation and Equity in Conditions of Uncertainty and Diversity**

Prerequisite: HBUS100 and HBUS105.

How can managers better promote a diversity of thought within their organization? When business leaders tap into the plurality of perspectives among their employees, they can improve on many dimensions. Unfortunately, many businesses fail to create a culture of inclusion that puts them at a disadvantage when managing uncertainty. How can managers better listen to internal and external stakeholders? How can these diverse perspectives better inform business decision making? How can businesses with multiple objectives - such as triple bottom line companies - better engage with their employees, customers, and corporate partners? This course will address these and related questions.

0101	Nima Farshchi	Seats (Total: 60)
	M 5:00pm - 7:40pm	PFR 1105

HBUS307 **Business Experience Reflection**

(Perm req)

Restriction: Must be a student in the Interdisciplinary Business Honors Program; and permission of the IBH Program.

A business experience is defined as an experiential learning activity either with an external organization, i.e. an internship, or with a University of Maryland organization, that will provide valuable, hands-on experiences to supplement the knowledge learned in the IBH courses.

0101	Elizabeth Galvin	Seats (Total: 20)
	TuTh 9:30am - 10:45am	PFR 1111

HDCC Design Cultures and Creativity Fall 2023

HDCC105 **Introduction to Design Cultures and Creativity I**

Restriction: Must be in the Design Cultures and Creativity Honors College Living/Learning program.

History, concepts, and technologies of creative design expression, coupled with an introduction to development for particular platforms and devices.

0101	Damien Pfister	Seats (Total: 70)
	TuTh 11:00am - 12:15pm	PFR 1105

HDCC201 **Capstone Proposal Through Design Thinking**

Prerequisite: HDCC105 and HDCC106. Restriction: Must be in the Design Cultures and Creativity Honors College Living/Learning program.

Engages principles of design thinking to prepare second-year students in the Design Cultures and Creativity (DCC) program to create a proposal for their spring Capstone Project.

0101	Jonathan Reyes	Seats (Total: 25)
	W 10:00am - 10:50am	PFR 0111

0201	Jonathan Reyes W 11:00am - 11:50am	Seats (Total: 25) PFR 0111
0301	Jonathan Reyes W 12:00pm - 12:50pm	Seats (Total: 25) PFR 0111

HDCC208A **Seminar in Digital Cultures and Creativity; Music Composition**

An advanced seminar in specific aspects of digital culture and creativity, designed to keep students abreast of the latest developments in new media and the online world. Possible topics include mobile gaming, digital storytelling, and electronic music.

0101	William Evans Th 12:00pm - 2:30pm	Seats (Total: 14) PAC 1108

HDCC208F **Seminar in Digital Cultures and Creativity; Creativity through Visual Communication**

An advanced seminar in specific aspects of digital culture and creativity, designed to keep students abreast of the latest developments in new media and the online world. Possible topics include mobile gaming, digital storytelling, and electronic music.

0101	Anat Szendro Sevilla W 4:00pm - 6:30pm	Seats (Total: 14) PFR 0111

HDCC208J **Seminar in Digital Cultures and Creativity; Gameplay and Game Mechanics**

An advanced seminar in specific aspects of digital culture and creativity, designed to keep students abreast of the latest developments in new media and the online world. Possible topics include mobile gaming, digital storytelling, and electronic music.

0101	Jessica Lu TuTh 12:30pm - 1:45pm	Seats (Total: 14) PFR 0111

HDCC208Q **Seminar in Digital Cultures and Creativity; Queer Media Praxis**

An advanced seminar in specific aspects of digital culture and creativity, designed to keep students abreast of the latest developments in new media and the online world. Possible topics include mobile gaming, digital storytelling, and electronic music.

0101	Alexis Lothian TuTh 11:00am - 12:15pm	Seats (Total: 14) PFR 0111

HDCC208V **Seminar in Digital Cultures and Creativity; Painting Pixels: Programming and Visual Art**

An advanced seminar in specific aspects of digital culture and creativity, designed to keep students abreast of the latest developments in new media and the online world. Possible topics include mobile gaming, digital storytelling, and electronic music.

0101	Jose Calderon TuTh 9:30am - 10:45am	Seats (Total: 14) PFR 0111

HDCC379 **Design Cultures and Creativity Independent Study**

(Perm req)

Involves research and/or creative scholarship directed by individual DCC faculty outside of the formal classroom structure.

0101	Jessica Lu, Damien Pfister Contact instructor or department for details.	Seats (Total: 10)

HEBR Hebrew Fall 2023

HEBR106 **Intensive Elementary Hebrew I**

Prerequisite: Must have appropriate World Language Placement Test (WLPT) score. Credit only granted for: HEBR111 or HEBR106.

An intensive study of fundamentals of Hebrew reading, writing, listening and Israeli culture. Covers present tense in all verb categories, basic syntax and builds vocabulary.

0101	Avital Karpman TuTh 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 15) JMZ 3203 ONLINE
0201	Avital Karpman TuTh 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 15) JMZ 3203 ONLINE

HEBR112 **Elementary Hebrew II**

Prerequisite: HEBR111; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed HEBR103; and must not have completed HEBR104. Credit only granted for: (HEBR103 and HEBR104) or HEBR112.

Continuation of HEBR 111.

Contact department for information to register for this course.

HEBR206 **Intermediate Intensive Hebrew I**

Prerequisite: Must have completed HEBR107 OR HEBR112; or must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a fluent/native speaker of Hebrew. Credit only granted for: HEBR206 or HEBR211.

Provides a comprehensive review of the fundamentals of Hebrew grammar and oral skills, and introduces new skills in future tense verb conjugation, and communication in reading, writing, listening and speaking.

0101	Avital Karpman	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	JMZ 3203
	Class time/details on ELMs	ONLINE

HEBR212 **Intermediate Hebrew II**

Prerequisite: HEBR211; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not have completed HEBR203; and must not have completed HEBR204. Credit only granted for: (HEBR203 and HEBR204) or HEBR212.

Continuation of HEBR211.

Contact department for information to register for this course.

HEBR249C **Special Topics in Hebrew Studies; Israeli Culture in Television, Film and Music**

A broad range of cultural and societal topics pertaining to the communication of Hebrew.

Modern Israeli film, television and music through a cultural and historical lens. Taught in Hebrew.

0101	Aliza Sandalon	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

HEBR298B **Introduction to the Hebrew Bible/Old Testament**

Cross-listed with: JWST262, ENGL262. Credit only granted for: JWST262, HEBR298B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

0101	Matthew Suriano	Seats (Total: 25)
	MW 2:00pm - 3:15pm	SQH 1103

HEBR313 **Conversation and Composition I**

Prerequisite: HEBR212; or students who have taken courses with comparable content may contact the department.

A practical language course recommended for all students continuing with Hebrew. Review of grammar and composition. Selected readings. Oral and written exercises.

0101	Aliza Sandalon	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

HEBR369A **Special Topics in Study Abroad III; Hebrew Lower Advanced**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369C **Special Topics in Study Abroad III; Hebrew Upper Advanced**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369D **Special Topics in Study Abroad III; Hebrew Upper Intermediate**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR386 **Experiential Learning**

(Perm req)

Restriction: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor; and junior standing or higher.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

HEBR498B **Special Topics in Hebrew; What Did the Rabbis Think the Bible Really Means**

Prerequisite: Course will be taught in English, with readings in Hebrew. Students should have at least first year Hebrew or equivalent. Cross-listed with JWST469C. Credit only granted for JWST469C or HEBR498B. Sacred texts like the Hebrew bible challenge human understanding the voice of the divine, they demand our constant study, interpretation and reinterpretation. Jewish scholars have been engaged in this process, known as exegesis, for many centuries, and have used many different methods to make the Bible give up its mysteries. In this course we will use the method of close reading to watch as rabbis struggled with, and argued over, biblical passages in order to construct Jewish law and Jewish rationalist and mystical theologies. We will examine issues ranging from vegetarianism to messianism, gender to eros, the purpose of life, the holiness of Jerusalem to the legitimacy of Halacha. The course is based on close text study of the biblical text and rabbinic commentaries in Hebrew.

0101	Bernard Cooperman	Seats (Total: 6)
	MW 10:00am - 10:50am	WDS 1131
	F 10:00am - 10:50am	ONLINE

HEBR499 **Independent Study in Hebrew**

(Perm req)

Independent study under faculty supervision.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

HESI Higher Ed, Student Affairs, and International Ed Policy Fall 2023

HESI310 **Transfer2Terp Learning Community: Applying Your Strengths at the University of Maryland and Beyond**

(Perm req)

Restriction: Priority will be given to students transferring from Maryland Community Colleges; or permission of EDUC-Counseling, Higher Education and Special Education department.

Students will identify their strengths and learn how to apply them both in and outside of the classroom. Students will work side by side with the faculty and staff in the Adele H. Stamp Student Union to learn about their strengths while applying them to leadership positions.

0201	Laura McCulley TuTh 11:00am - 12:15pm	Seats (Total: 15) EDU 2101

HESI318R **Applied Contextual Leadership; Applied Contextual Leadership; Foundations and Applications of Challenge Course Theory and Instruction**

(Perm req)

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Prerequisite: Permission of Instructor needed. Required course to become a Challenge C ourse facilitator with the RecWell Adventure Program. Contact Meghan Lou ghry at mloughry@umd.edu to schedule an interview. Restriction: Permission of department.

0101	Meghan Loughry M 6:00pm - 9:00pm	Seats (Total: 12) ERC B0170E

HESI318T **Applied Contextual Leadership; Foundations and Applications of Adventure Leadership Instruction**

(Perm req)

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Permission of instructor needed. Required course to become an Adventure Trip Leader with the RecWell Adventure Program. Contact Amanda Preperato at aprep@umd.edu to schedule an interview.

0101	Meghan Loughry Tu 6:00pm - 9:00pm	Seats (Total: 10) ERC B0170E

HESI318Y **Applied Contextual Leadership; PHA Recruitment Counselors**

(Perm req)

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

0101	Tyler Huddleston W 6:00pm - 9:00pm	Seats (Total: 85) TWS 1100

HESI423 **Leadership and Ethnicity**

Credit only granted for: HESI418D or HESI423. Formerly: HESI418D.

Examines the concept of leadership from the standpoint of race, ethnicity, and culture. Specifically, we will explore the concept and differing meanings of leader and leadership within racial/ethnic communities in the United States. Issues of leaders and leadership will be examined as influenced by political, cultural, and historic events. The course will place particular emphasis on colleges and universities as a microcosm of the larger society and as a cultural site for exploring and assessing issues of race, ethnicity, diversity and leadership.

0101	Brandon Dula	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	HJP 2217

HESI424 **Leadership and the Jewish Community**

Credit only granted for: HESI418F or HESI424. Formerly: HESI418F.

Offers students the opportunity to critically examine leadership and leadership identity development in relation to Jewish culture and identity. Explores how Jewish culture and ethnicity influence leadership styles and the role that leadership has played within Jewish history. Students will explore general leadership theories as well as personal leadership identity development in both an overall sense and as a member of the Jewish community. Examines leaders within the Jewish movement and how their leadership has influenced Jewish communities and explores issues facing the Jewish community both on college campuses and in the world and prepare student leaders to act as advocates for the Jewish community.

0101	Ari Israel	Seats (Total: 35)
	M 2:00pm - 4:45pm	SQH 1105

HESI671 **Intergroup Dialogue Facilitation Practicum**

Prerequisite: EDCP616 and HESI771; or permission of instructor. Restriction: Limited to HESI Student Affairs Concentration students only. Credit only granted for: EDCP671 or HESI671. Formerly: EDCP671.

Developing knowledge and skills for facilitating intergroup dialogues. Using the principles and content of intergroup dialogues to create scenarios for the practice of listening, understanding, and taking action under theories of social justice.

0101	Carlton Green, Jazmin Pichardo	Seats (Total: 13)
	M 12:00pm - 3:00pm	Location: TBA

HESI672 **Individual and Organizational Assessment in Student Affairs**

Credit only granted for: EDCP672 or HESI672. Formerly: EDCP672.

An examination of the scholarship and practice of assessment of college student learning and developmental outcomes as well as organizational practices that contribute to those outcomes.

0101	Kristan Skendall Tu 4:30pm - 7:15pm	Seats (Total: 15) EDU 2102

HESP Hearing and Speech Sciences Fall 2023

HESP120 **Introduction to Linguistics**

Additional information: HESP120 is required for HESP majors. HESP majors may not substitute LING200.

An introduction to the scientific study of natural language with focus on the basic concepts of phonology, syntax, semantics and pragmatics, with subsequent attention to the applied aspects of linguistic principles.

0101	Dominique Mwepu TuTh 12:30pm - 1:45pm	Seats (Total: 45) ASY 3203
FC01	Dominique Mwepu TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 36) ASY 3211

HESP150 **Introduction to Language Science**

Language science is the scientific study of how humans acquire, use, comprehend, and produce language. Most people in all societies learn and use their native language or languages with apparent ease - but don't be fooled: languages are highly complex, and speaking and understanding language requires some amazing feats of mental acrobatics. Thus there are many opportunities for difficulties with language, which is the focus of our field. Understanding difficulties with speech, language, and hearing require first understanding how processing works when language is successful - the psychological (behavioral) and neurobiological (brain) factors that enable people to learn and use language despite its intricacies, the structure and properties of language itself, and how knowledge of language is acquired, represented, and processed in the mind and brain.

PBH1	Manaar Zuhurudeen Tu 6:30pm - 9:00pm *Must be in the Hearing & Speech in the Evening (HESPIE) program.*	Seats (Total: 50) SQH 1117

HESP202 **Introduction to Hearing and Speech Sciences**

An introduction to communication sciences and disorders; a survey of the bases of normal speech, language and hearing ability, major forms of communicative disorders and their treatment.

0101	Christina Shields, Sarah Zsak TuTh 9:30am - 10:45am	Seats (Total: 100) CHE 2110

HESP214 **The Research Behind Headlines on Words, Thought, and Behavior**

Cross-listed with: HNUH278A. Credit only granted for: HNUH278A or HESP214.

How does the human mind use language? Type "Language Science News" into your Google search bar. Among the more than 3 billion hits, headlines like "What is love? It depends what language you speak" and "Science's English dominance hinders diversity" invite you to think about the impact of words on thought and behavior. These are stories about how humans acquire and use language, but they ultimately address big questions about how we experience knowledge itself. In a world of unprecedented access to science journalism, did you ever read a headline about human behavior and wonder: How do we know? This class takes up the elegant ways cognitive scientists design experiments to answer crucial questions about language and thought, brain and behavior, that have no intuitive answers. Students will dive deep into the media coverage of their favorite claims about what we know, debate the psychological science behind these claims, and develop transferable critical-thinking skills in the process.

FC02	Meghan Hersh	Seats (Total: 24)
	TuTh 4:30pm - 5:45pm	LEF 2166
	Restricted to students in Freshmen Connection.	

HESP300 **Introduction to Psycholinguistics**

Prerequisite: Minimum grade of C- in HESP202; or permission of BSOS-Hearing & Speech Sciences department. Recommended: HESP120.

An introduction to current theories of language and an investigation of their relationship to human communication behavior. Survey of the experimental literature relating to this question.

0101	Yi Ting Huang	Seats (Total: 45)
	TuTh 2:00pm - 3:15pm	TWS 0236

HESP305 **Anatomy and Physiology of the Speech Mechanism**

(Perm req)

Prerequisite: Minimum grade of C- in HESP202; or permission of BSOS-Hearing & Speech Sciences department.

Anatomy, physiology, and neurology of speech mechanism.

0101	Tammatha O'Brien	Seats (Total: 60)
	TuTh 11:00am - 12:15pm	SQH 1119

HESP307 **Speech & Hearing Science**

Prerequisite: HESP303.

Human hearing is exquisitely sensitive, allowing us to hear extremely faint sounds, to follow the sounds of a friend's voice in a loud party, and to appreciate subtle differences between words in the language. This course provides an introduction to the basic physics of sound, the acoustic properties of the sounds of speech, and the mechanisms by which those sounds are perceived by the listener.

PDH1	Kimberly Jenkins	Seats (Total: 25)	
	M 6:30pm - 9:00pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion
	Must be in the Hearing & Speech in the Evening (HESPIE) program, online		

HESP311 **Anatomy, Pathology and Physiology of the Auditory System**

Prerequisite: Minimum grade of C- in HESP202; or permission of BSOS-Hearing & Speech Sciences department.

Gross anatomy of the ear and pathways for transmission of sound energy through the peripheral and central auditory system. Causes, development and effects of pathological conditions contributing to temporary or chronic hearing impairments.

0101	Angela Schrout	Seats (Total: 48)
	TuTh 3:30pm - 4:45pm	SPH 0308

HESP313 **Neurobiology for Speech and Hearing**

This course is designed to provide an understanding of normal neuroanatomy and neurophysiology of speech and language. It will also provide preliminary information regarding pathologic processes, especially those affecting speech and language

PDH1	Rebecca Colangelo	Seats (Total: 25)
	W 6:30pm - 8:10pm	ONLINE
	Must be in the Hearing & Speech in the Evening (HESPIE) program, online	

HESP386 **Experiential Learning**

(Perm req)

Restriction: Junior standing or higher; and permission of BSOS-Hearing & Speech Sciences department.

Students will have the opportunity observe and/or participate in therapy activities provided by a speech-language pathologist or audiologist in this experiential learning course.

Contact department for information to register for this course.

HESP388 **Undergraduate Research Experience**

(Perm req)

Undergraduate research experience working under HESP faculty or outside affiliates.

Contact department for information to register for this course.

HESP389 **LEAP Classroom Internship**

(Perm req)

Participation in a language-based, literacy-rich preschool classroom for children with speech-language disorders. Students will learn behavior management techniques, curriculum planning and implementation, facilitation of play among children, data collection and teaching srategies.

Contact department for information to register for this course.

HESP396 **SIGNA Undergraduate Peer Mentor Clinical Practicum**

(Perm req)

Prerequisite: HESP202. Recommended: Coursework in PSYC, EDUC, Human Development, Disability Studies. Restriction: Sophomore standing or higher; and permission by instructor .

Students are paired with neurodivergent UMD students to support mentoring in social communication and executive functioning skills. Peer mentors are selected based on a rigorous application process for fall and spring semesters. Selected peer mentors will engage in an orientation process which includes in depth information on neurodiversity and the intersectionality of DEI; attend a weekly lecture and group sessions to acquire up-to-date knowledge and application of knowledge with neurodiverse populations; and manage meetings with neurodivergent students one-to-one on a weekly basis to support carryover of social coaching and executive functioning strategies.

0101	Devon Brunson	Seats (Total: 10)
	Contact instructor or department for details.	

HESP397 **SIGNA Undergraduate Peer Coach Clinical Practicum**

(Perm req)

Prerequisite: HESP202. Recommended: Coursework in PSYC, EDUC, Human Development, Disability Studies, HESP396. Restriction: Junior standing or higher; and permission of instructor.

Students co-lead weekly groups for neurodivergent college students, coaching on topics and strategies pertaining to social communication and executive functioning skills. Peer coaches create outlines for weekly groups which are individualized by needs and interests. Peer coaches plan monthly social outings for SIGNA personnel to support generalization of executive functioning and social communication skills. Peer coaches are selected based on a rigorous application process for fall and spring semesters. Students who previously served in a peer mentor role in SIGNA are given priority consideration as peer coaches. Peer coaches will engage in an orientation process which includes in depth information on neurodiversity; attend weekly lectures to acquire up-to-date knowledge of neurodiverse populations; and attend group debrief meetings with the course instructor on a weekly basis to support implementation of social coaching and executive functioning feedback from groups.

0101	Devon Brunson	Seats (Total: 10)
	Contact instructor or department for details.	

HESP400 **Speech and Language Development in Children**

Prerequisite: Minimum grade of C- in HESP300; or permission of BSOS-Hearing & Speech Sciences department. Recommended: LING200 or HESP120. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

Analysis of the normal processes of speech and language development in children.

0101	Sarah Zsak TuTh 12:30pm - 1:45pm	Seats (Total: 45) ASY 3211
PBH1	Tonya Williams-Walker Th 6:30pm - 9:00pm	Seats (Total: 50) ARC 1101
	Must be in the Hearing & Speech in the Evening (HESPIE) program.	

HESP403 Introduction to Phonetic Science

Prerequisite: Minimum grade of C- in HESP305; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

An introduction to physiological, acoustic and perceptual phonetics; broad and narrow phonetic transcription; current models of speech production and perception.

0101	Margaritis Fourakis TuTh 2:00pm - 3:15pm	Seats (Total: 45) LEF 2166

HESP411 Introduction to Audiology

Prerequisite: Minimum grade of C- in HESP311; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

An introduction to the field of audiology. Evaluation and remediation of hearing handicaps.

0101	Jessica Kreidler TuTh 3:30pm - 4:45pm	Seats (Total: 50) KEY 0103
PBH1	Christopher Zalewski M 6:00pm - 8:30pm	Seats (Total: 25) KNI 1206
	Must be in the Hearing & Speech in the Evening (HESPIE) program.	

HESP413 Aural Rehabilitation/Habilitation

Prerequisite: HESP411. Restriction: Sophomore standing or higher.

The fundamental aspects of aural rehabilitation therapy for both adults and children are introduced to students. Class time will consist of lectures, discussions, and hands-on activities.

PBH1	Monica Allgauer W 6:00pm - 8:30pm	Seats (Total: 25) ASY 3215
	Must be in the Hearing & Speech in the Evening (HESPIE) program.	

HESP415 **Principles and Methods in Speech-Language Pathology**

Prerequisite: HESP400. Restriction: Must be in Hearing and Speech Sciences program.

The principles and methods required to provide treatment of speech and language disorders to children and adults. Topics include writing goals and objectives, programming,teaching strategies,session design, data collection, behavior modification and counseling.

0101	Ashley Webb	Seats (Total: 40)
	W 1:00pm - 2:45pm	TYD 0111

HESP416 **Principles and Methods in Audiology**

(Perm req)

Prerequisite: Minimum grade of C- in HESP411. Restriction: Must be in Hearing and Speech Sciences program; and permission of BSOS-Hearing & Speech Sciences department.

Relate previous knowledge of anatomy/physiology and pathologies of the auditory system and integrate this information into clinical application.

0101	Lisa Rickard	Seats (Total: 25)
	W 3:30pm - 5:15pm	LEF 0135

HESP420 **Deaf Culture and ASL for the CSD Professional**

Prerequisite: HESP202. Credit only granted for: HESP498A or HESP420. Formerly: HESP498A.

Studying Deaf Culture and American Sign Language is crucial in enhancing the culturally competent practice of allied health professionals. This course explores the politics of (dis)ability through the lens of the experience of d/Deafness and the emergence of the Deaf community as a linguistic and cultural group in the United States, as well as issues that impact the provision of services to this population.

0101	Lacey Curry	Seats (Total: 40)
	MW 2:00pm - 3:15pm	TWS 0205

HESP422 **Neurological Bases of Human Communication**

Prerequisite: HESP305; or permission of instructor. Credit only granted for: HESP498 or HESP422.

Basic neurology as it pertains to anatomy and physiology substrates of speech and language.

0101	Kristin Slawson	Seats (Total: 40)
	TuTh 9:30am - 10:45am	ASY 3211

HESP468H **Professional Development in Research and Academia; Honors Seminar: Professional Development**

The purpose of this seminar is to complement your honors project with practical advice on how to navigate successful careers in research and academia. As you progress through your undergraduate years (especially if you work in a lab), you will likely make several unofficial observations about life as a graduate student, postdoc, or professor, and overhear conversations that include new terminology that may be confusing (e.g., research mentorship, grants, conference abstract, tenure). This can create a mysterious aura around what it is like to obtain your PhD and work in academia generally. In this class, we will cover tips and skills that are often passed along informally in the lab; but here, we will discuss these issues overtly from a range of perspectives, experiences, and best practices.

0101	Jared Novick, Matthew Goupell	Seats (Total: 10)
	F 1:00pm - 1:50pm	LEF 0104

HESP469 **Honor Thesis Research**

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP469A **Honor Thesis Research**

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP469B **Honor Thesis Research**

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP498 **Seminar**

Selected topics in human communication and its disorders.

Contact department for information to register for this course.

HESP499 **Independent Study; Topics in the Hearing and Speech Sciences**

(Perm req)

A directed study of selected topics pertaining to human communication and its disorders.

Contact department for information to register for this course.

HESP499H **Independent Study**

A directed study of selected topics pertaining to human communication and its disorders.

Contact department for information to register for this course.

HESP600 **Instrumentation in Hearing and Speech Sciences**

(Perm req)

Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Types and principles of operation of electronic equipment used in the hearing and speech sciences.

Offered Fall only.

0101	Joshua Bernstein	Seats (Total: 10)
	Th 6:00pm - 8:30pm	LEF 0135

HESP606 **Basic Hearing Measurements**

(Perm req)

Prerequisite: HESP411; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Theoretical principles, methodology, and interpretation of routine audiometric tests, including pure tone, speech, and acoustic immittance measures. Modification of procedures for special populations. Equipment calibration and mass hearing screening programs.

0101	Kimberly Jenkins	Seats (Total: 9)
	Tu 4:30pm - 7:00pm	LEF 1171

HESP610 **Language Disorders in Adults**

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor.

Etiology, diagnosis and management of language problems of adults associated with aging, brain injury and degenerative conditions.

0101	Melissa Stockbridge, Victoria Bolowsky	Seats (Total: 30)
	Meets October 18, 2023 - December 11, 2023	
	Th 5:00pm - 8:35pm	ONLINE

HESP613 **Autism Spectrum Disorders**

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor. Credit only granted for: HESP639A or HESP613. Formerly: HESP639A.

Etiology, diagnosis and management of autism spectrum disorders.

0101	Jonet Artis	Seats (Total: 31)
	Meets October 18, 2023 - December 11, 2023	
	Tu 9:30am - 12:50pm	LEF 0135

HESP616 **Language Disorders in the Pre-school Age**

(Perm req)

Prerequisite: HESP400; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Theoretical, empirical and clinical perspectives on language disorders in children from infancy through pre-school age.

0101	Nan Ratner	Seats (Total: 30)
	Meets August 28, 2023 - October 16, 2023	
	Tu 9:30am - 1:05pm	LEF 0135

HESP624 **Voice Disorders**

(Perm req)

Restriction: Permission of BSOS-Hearing & Speech Sciences department; or must be in Hearing and Speech Sciences: M.A. (Master's) program.

Etiological characteristics, assessment and treatment of phonatory disorders in children and adults.

0101	Nancy Solomon	Seats (Total: 30)
	Meets August 28, 2023 - October 12, 2023	
	Tu 6:45pm - 9:00pm	LEF 0135
	Class time/details on ELMs	ONLINE

HESP626 **Language disorders in school-aged children and adolescents**

Etiology, assessment and treatment of communication and learning problems in school age children and adolescents

0101	Nan Ratner	Seats (Total: 30)
	Meets October 18, 2023 - December 11, 2023	
	Tu 4:15pm - 7:35pm	LEF 0135

HESP630 **Electrophysiological Measurements**

(Perm req)

Prerequisite: HESP606. Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Principles and techniques of physiological and electrophysiological measures of the audio-vestibular mechanisms.

Offered fall only.

0101	Samira Anderson Th 9:00am - 11:30am	Seats (Total: 10) JMZ 1123

HESP638 **Research Practicum**

(Perm req)

Analysis, synthesis and integration of knowledge related to current research or clinical issues in human communication and its related disorders.

Contact department for information to register for this course.

HESP639D **Special Topics in Hearing and Speech Sciences; Advanced Dysphagia**

Intensive coverage of selected topics of current interest.

0101	Ed Bice M 5:00pm - 6:40pm	Seats (Total: 30) ONLINE

HESP645 **Pediatric Audiology**

(Perm req)

Prerequisite: HESP606. Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Evaluation and treatement of hearing-impaired children.

Offered Fall only.

0101	Hannah Willison M 6:00pm - 8:30pm	Seats (Total: 10) LEF 0135

HESP648A **Clinical Practice in Speech: Diagnostic Procedures**

(Perm req)

Restriction: Permission of instructor.

Supervised training in the application of clinical methods in the diagnosis of speech disorders.

2101	Jessica Wertz Contact instructor or department for details.	Seats (Total: 5)	
2301	Eliza Thompson F 9:00am - 11:50am	Seats (Total: 5) LEF 0135	Lab

2801	Eusebia Mont F 9:00am - 11:50am	Seats (Total: 5) LEF 0135	 Lab
3401	Ashley Webb F 9:00am - 11:50am	Seats (Total: 5) LEF 0135	 Lab
3601	Kristin Slawson F 9:00am - 11:50am	Seats (Total: 5) LEF 0135	 Lab
3701	Kathryn Dow-Burger F 9:00am - 11:50am	Seats (Total: 5) LEF 0135	 Lab

HESP648B **Clinical Practice in Speech: Therapeutic Procedures**

(Perm req)

Prerequisite: HESP648A. Restriction: Permission of instructor. Repeatable to 6 credits.

Supervised training in the application of clinical methods in the treatment of speech disorders.

2101	Jessica Wertz Th 12:45pm - 1:35pm W 1:00pm - 2:30pm	Seats (Total: 5) LEF 0135 Location: TBA	 Lab Lab
2301	Eliza Thompson Th 12:45pm - 1:35pm	Seats (Total: 5) LEF 0135	 Lab
2801	Eusebia Mont M 9:30am - 10:50am	Seats (Total: 5) LEF 0135	 Lab
3301	Courtney Overton Th 12:45pm - 1:35pm F 12:00pm - 12:50pm	Seats (Total: 5) LEF 0135 Location: TBA	 Lab Lab
3401	Ashley Webb Th 12:45pm - 1:45pm	Seats (Total: 5) LEF 0135	 Lab
3701	Kathryn Dow-Burger Th 12:45pm - 1:35pm	Seats (Total: 5) LEF 0135	 Lab

HESP649A **Clinical Practice in Audiology: Diagnostic Procedures**

Restriction: Permission of instructor. Repeatable to 6 credits.

Supervised training in the application of clinical methods in the diagnosis of hearing disorders.

1101	Lacey Curry W 9:00am - 10:50am	Seats (Total: 5) LEF 0135
1501	Lisa Rickard W 9:00am - 10:50am	Seats (Total: 5) LEF 0135
2401	Christina Shields W 9:00am - 10:50am	Seats (Total: 5) LEF 0135
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 5)
3501	Sarah Sohns W 9:00am - 10:50am	Seats (Total: 5) LEF 0135

HESP649B **Clinical Practice in Audiology - Aural Rehabilitation**

(Perm req)

Prerequisite: HESP649A.

A clinical practicum course with individualized instruction, which focuses on the skills necessary to provide intervention and counseling for a wide range of disorders of the auditory system in patients of varying ages and cultural backgrounds. Each student will be various activities across three semesters (Spring YR2, Summer YR2, and Fall YR3). Students may work individually or in pairs to provide hearing loss intervention, auditory training, hearing loss prevention education, and communication strategy training. The student is expected to prepare for each session with a complete clinical plan, educational materials, and counseling strategies. Students must meet with the Audiologist prior to the aural rehabilitation (AR) session to discuss the plan of care. During the visit, the student will perform hearing loss handicap assessments, lead counseling sessions regarding rehabilitative options, make modifications to existing treatment plans/hearing aids, and educate the patient about their hearing. Following the visit, the student will document the encounter according to clinical protocol and ethical standards using the electronic medical records system. All patient-related information will be handled within a secure computer environment which meets HIPAA regulations for protected health information.

Contact department for information to register for this course.

HESP700 **Hearing Aids**

Principles, methods and procedures for selection, fitting, calibration and management of amplification systems for hearing-impaired children and adults.

0101	Eric Hoover W 4:00pm - 6:30pm	Seats (Total: 10) ASY 1213

HESP702 **Diagnostic Procedures in Speech-Language Pathology**

(Perm req)

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Diagnostic tools and methods in the analysis of speech-language disorders in children and adults.

0101	Eliza Thompson **Meets August 28, 2023 - October 17, 2023** Th 9:00am - 12:35pm	Seats (Total: 30) LEF 0135

HESP708 **Independent Study**

(Perm req)

Individual research projects under guidance of a faculty member.

Contact department for information to register for this course.

HESP710 **Industrial and Environmental Noise Problems**

(Perm req)

Restriction: Permission of instructor.

Evaluation and control of noise hazards. Effects of noise on man. Medico-legal aspects of noise-induced hearing impairment.

0101	Eric Hoover M 9:30am - 12:00pm Contact instructor or department for details.	Seats (Total: 20) LEF 1220

HESP712 **Cochlear Implants and Other Implantable Technologies**

Prerequisite: Must have completed or be concurrently enrolled in HESP700, HESP701, and HESP722; or permission of instructor.

Comprehensive presentation of cochlear implant design and processing, medical/surgical aspects, evaluation, programming, outcomes in children and adults, and post stimulation care. The role of the audiologist as a member of the cochlear implant team will be emphasized. Current and emerging trends in other implantable technologies also will be covered.

0101	Nicole Nguyen, Matthew Goupell M 2:30pm - 5:00pm	Seats (Total: 12) LEF 0135

HESP722 **Psychoacoustics**

Auditory perception and auditory processing in normal and impaired hearing.

0101	Matthew Goupell Th 3:30pm - 6:00pm	Seats (Total: 15) LEF 1222

HESP728 **Advanced Clinical Practice in Speech; Advanced Graduate Laboratory Practicum in Speech-Language Pathology**

(Perm req)

Clinical internship in selected off-campus facilities.

Contact department for information to register for this course.

HESP729 **Advanced Clinical Practice in Audiology; Advanced Graduate Laboratory Practicum in Audiology**

(Perm req)

Clinical internship in selected off-campus facilities.

1301	Nicole Nguyen Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)	
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 5)	

HESP732 **Hearing Aids lab**

Corequisite: HESP700.

Laboratory experience covering clinical procedures of concepts addressed in concurrent academic course, Hearing Aids 1 (HESP700). This laboratory is 1-credit and graded separately from HESP700. Students will be given the opportunity for hands-on practice in the use of amplification devices for the treatment of hearing impairment. As the first lab in the course series, students will be able to describe and apply current best practices required for amplification-based aural (re)habilitation for patients across the lifespan including those that may differ from them in race, ethnicity, gender identity, sexual orientation, and socioeconomic background.

0101	Sarah Sohns W 2:00pm - 2:50pm	Seats (Total: 15) LEF 1221	Lab

HESP734 **Basic Hearing Measurement Laboratory**

Prerequisite: HESP416. Corequisite: HESP606.

Supplemental lab experience that coincides with HESP606: Basic Hearing Measurement. Students will complete hands-on learning activities to reinforce theoretical concepts from the didactic learning in HESP606. The goal of this lab is to facilitate the transfer of learning from the classroom to clinical practicum.

0101	Nicole Nguyen, Christina Shields F 1:00pm - 1:50pm	Seats (Total: 15) LEF 1221	Lab

HESP788 **Graduate Research Externship**

Off-campus research internship with departmental affiliates at National Institutes of Health and other regional universities. Contact department chairman for available placements, requirements and openings.

Contact department for information to register for this course.

HESP799 **Master's Thesis Research**
Contact department for information to register for this course.

HESP829 **Clinical Internship Residency**

Off-Campus, full-time (30-40 hours/week) clinical externship in Audiology at regional and national institutions.

1301	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 5)
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 5)

HESP849 **Capstone Research Project I**

First of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves individual study and/or supervised lab work with mentor, preparation of research proposal (including IRB protocol if required), and attendance at Capstone Research Project Workshop.

Contact department for information to register for this course.

HESP859 **Capstone Research Project II**

Second of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves final data collection, analysis and presentation of results or completion of scholarly paper under the direction of the faculty mentor.

Contact department for information to register for this course.

HESP898 **Pre-Candidacy Research**
Contact department for information to register for this course.

HESP899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

HGLO Honors Global Communities Fall 2023

HGLO100 **The Student in the University: Global Communities**

Restriction: Must be enrolled in Honors Global Communities Living-Learning Program. Credit only granted for: BSGC100 or HGLO100. Formerly: BSGC100.

Students will develop a sense of community within the program, become familiar with campus resources, gain skills and information to prepare for the Global Experience Semester, and explore the surrounding international community.

0101	Alfredo Oliveira Tu 9:30am - 10:45am	Seats (Total: 22) DOR 0134	
0102	Brandon Harris Tu 11:00am - 12:15pm	Seats (Total: 22) DOR 0134	
0103	Alfredo Oliveira Tu 2:00pm - 3:15pm	Seats (Total: 22) DOR 0134	
0104	Natalie Vinski Ibrahim Tu 12:30pm - 1:45pm	Seats (Total: 22) DOR 0134	

HGLO101 **Saving the World With Data**

Restriction: Must be in Honors Global Communities Living-Learning program. Credit only granted for: HGLO101 or BSGC101. Formerly: BSGC101.

The world is grappling with many intractable issues, like climate change, pandemics, democratic backsliding, and inequality. How can we use data analysis to help us better understand and work to solve these problems? In this class students will engage with a wide range of issues affecting the entire globe. In addition, they will also gain valuable data science skills by learning the basics of coding in R. No previous programing experience is required.

0101	Sarah Croco MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 22) TYD 0117 DOR 0134	Discussion
0102	Sarah Croco MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 22) TYD 0117 DOR 0134	Discussion
0103	Sarah Croco MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 22) TYD 0117 DOR 0134	Discussion
0104	Sarah Croco MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 22) TYD 0117 DOR 0134	Discussion

HGLO208 **Using Data to Answer Hard Questions**

In this class, students will learn more advanced data science techniques and gain an understanding of hypothesis formation and general research design.

Must be in Honors Global Communities Living-Learning program.

0101	Sarah Croco MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) TYD 2109 WDS 1114	Discussion

HHUM Honors Humanities Fall 2023

HHUM105 **Honors Humanities: Introduction to the Arts and Humanities**

Restriction: Must be an entering freshmen in the Honors Humanities Program. Credit only granted for: ARHU105 or HHUM105. Formerly: ARHU105.

Introduction to the university, the different fields of the arts and humanities, and the history of how the university and the humanities have evolved across the world from ancient times to the present. Primary emphasis on reading and discussion of literary artifacts to assess the meaning and social status of the arts and humanities in the past and their personal and social value for the future.

0101	Randy Ontiveros MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 19) ESJ 1215 ANA 0120	Discussion
0102	Randy Ontiveros MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 19) ESJ 1215 ANA 0120	Discussion
0103	Randy Ontiveros MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 19) ESJ 1215 ANA 0120	Discussion
0104	Randy Ontiveros MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 19) ESJ 1215 ANA 0120	Discussion

HHUM205 **Second Year Seminar in Honors Humanities**

Credit only granted for: ARHU205 or HHUM205. Formerly: ARHU205.

Seminar on basic issues and methodologies in the humanities and arts.

0101	Kathleen Spanos TuTh 3:30pm - 4:45pm *Dancing in the World.*	Seats (Total: 16) PAC 3732	
0102	Anthony Obute TuTh 12:30pm - 1:45pm *Environmental Practices in the Global South.*	Seats (Total: 16) ANA 0120	

0103	Aneta Georgievska-Shine Tu 2:00pm - 4:30pm *Art and Medicine Renaissance/Baroque.*	Seats (Total: 16) LEF 1222
0104	Heidi Scott TuTh 11:00am - 12:15pm *Ecology of Identity.*	Seats (Total: 16) ANA 0120
0105	Van Tran Nguyen Tu 2:00pm - 4:30pm *Digital Narratives: Representation and Resistance.*	Seats (Total: 16) ANA 0120

HHUM328 **Internship in Honors Humanities**

Supervised service-learning in Honors Humanities.

0101	Sarah Humud Class time/details on ELMs	Seats (Total: 12) ONLINE
0102	Sarah Humud Class time/details on ELMs	Seats (Total: 12) ONLINE
0103	Sarah Humud Class time/details on ELMs	Seats (Total: 12) ONLINE

HHUM329 **Undergraduate Teaching Assistantship**

Supervised pedagogical service-learning in the Honors Humanities curriculum.

0101	Randy Ontiveros Class time/details on ELMs	Seats (Total: 8) ONLINE

HISP Historic Preservation Fall 2023

HISP600 **History, Theory, and Practice of Historic Preservation**

(Perm req)

Prerequisite: Permission of ARCH-Historic Preservation Program.

An introduction to history, theory and practice of historic preservation covered through readings, discussions, presentations, class projects, and field trips.

0101	Susan Kern Th 7:00pm - 9:40pm	Seats (Total: 20) ARC 1117

HISP611 **Historical Research Methods**

(Perm req)

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP610 or HISP611.

Research methods used by professional historic preservationists to identify and record historic structures and sites. Emphasizes inter/multidisciplinary nature of contemporary preservation practice using archival and ethnographic evidence as a basis for establishing significance.

Department permission required.

0101	John Sprinkle W 7:00pm - 9:40pm	Seats (Total: 15) ARC 1125

HISP629 **Independent Studies in Historic Preservation**

Individual Instruction course.

0101	Susan Kern TBA	Seats (Total: 1) ARC 1117

HISP650 **Historic Preservation Studio Workshop**

(Perm req)

Prerequisite: HISP600; and permission of ARCH-Historic Preservation Program. Restriction: Must be in a major in ARCH-Historic Preservation Program.

Students carry out a group preservation project in a local community, from inception and problem formulation through completion. Guided carefully by a faculty team, students will conduct research, interact with communities, perform analyses, and propose solutions for an issue or problem of direct relevance to a local community and client group.

Department permission required.

0101	Michelle Magalong TuTh 4:00pm - 6:40pm	Seats (Total: 15) ARC 1117

HISP655 **American Vernacular Architecture**

(Perm req)

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP655 or HISP619V. Formerly: HISP619V.

History, theory, and practice of American vernacular architecture including a review of common building technologies, structure, and style, and focusing on methods and approaches for recording, documenting and analyzing these historic resources.

Prerequisite: permission of department. Class will meet some sessions at Bostwick House.

0101	Donald Linebaugh Tu 7:00pm - 9:40pm Contact instructor or department for details.	Seats (Total: 15) ARC 1117

HISP660 **Internship in Historic Preservation**

(Perm req)

Prerequisite: Permission of ARCH-Historic Preservation Program. Formerly: HISP619.

Students will secure a summer internship with an organization engaged in historic preservation work (this can be a public agency, nonprofit, or private firm). The students will formulate a plan of work and a series of pedagogical goals to satisfy both the practical needs of the project and the academic requirements for the course.

0101	Susan Kern Contact instructor or department for details.	Seats (Total: 10)

HISP680 **Preservation Economics**

(Perm req)

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP619N or HISP680. Formerly: HISP619N.

Students are introduced to a range of economic theories, methods, and issues that must be considered in the practice of historic preservation. Case studies related to community economic development, adaptive reuse, tax credit programs, project finance, and land use will be presented.

0101	Cristina Amoruso M 7:00pm - 9:40pm	Seats (Total: 15) ARC 1117

HISP701 **Certificate Portfolio Project**

(Perm req)

Prerequisite: Permission of ARCH-Historic Preservation Program.

Students will gather samples of their work and craft a synthetic statement on their experiences in their HISP certificate courses (for example, picking up on themes such as community involvement, diversity of practice, affordable housing, or sustainability), and the ways in which they have integrated historic preservation into their thinking and practice in their home discipline.

Department permission required.

0101	Donald Linebaugh TBA	Seats (Total: 10) ARC 1117

HISP710 **Final Project in Historic Preservation I**

(Perm req)

Credit only granted for: HISP700 or HISP710. Formerly: HISP700.

An independent, applied research project investigating the preservation of a particular site or a specialized issue in historic preservation. This is part one of a two-semester sequence and involves developing the project proposal and bibliography.

Department permission required.

0101	Susan Kern W 7:00pm - 9:40pm	Seats (Total: 10) ARC 1117

HISP711 **Final Project in Historic Preservation II**

(Perm req)

Credit only granted for: HISP700 or HISP711. Formerly: HISP700.

An independent, applied research project invesitgating the preservation of a particular site or a specialized issue in historic preservation. This is part two of a two semester sequence and involves project research and writing.

Department permission required.

0101	Susan Kern TBA	Seats (Total: 10) ARC 1117

HIST History Fall 2023

HIST106 **American Jewish Experience**

Cross-listed with: JWST141. Credit only granted for: HIST106 or JWST141.

History of the Jews in America from Colonial times to the present. Emphasis on the waves of migration from Germany and Eastern Europe; the changing nature of the American Jewish community and its participation in American social, economic, and political life.

0101	Marsha Rozenblit TuTh 2:00pm - 3:15pm	Seats (Total: 40) KEY 0116

HIST111 **The Medieval World**

The development of Europe in the Middle Ages; the role of religious values in shaping new social, economic, and political institutions; medieval literature, art and architecture.

0101	Christopher Halsted MW 10:00am - 10:50am M 1:00pm - 1:50pm	Seats (Total: 23) MMH 1400 KEY 0100	Discussion
0102	Christopher Halsted MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 23) MMH 1400 KEY 0100	Discussion
0103	Christopher Halsted MW 10:00am - 10:50am M 2:00pm - 2:50pm	Seats (Total: 23) MMH 1400 KEY 0100	Discussion
0104	Christopher Halsted MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 23) MMH 1400 KEY 0102	Discussion
0105	Christopher Halsted MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 23) MMH 1400 KEY 0100	Discussion
0106	Christopher Halsted MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 23) MMH 1400 KEY 0100	Discussion

HIST120 **Islamic Civilization**

Cross-listed with: RELS120. Credit only granted for: HIST120 or RELS120.

Introduction to society and culture in the Middle East since the advent of Islam: as a personal and communal faith; as artistic and literary highlights of intellectual and cultural life; and as the interplay between politics and religion under the major Islamic regimes.

0101	Rachel Schine MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 23) SYM 0200 TLF 1103	Discussion
0102	Rachel Schine MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) SYM 0200 TLF 1103	Discussion
0103	Rachel Schine MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 23) SYM 0200 TLF 1103	Discussion

HIST122 **African Civilization to 1800**

History of Africa from earliest times to 1800. Topics of study include origins of African societies, Nile Valley civilization, medieval African states and societies, Islam, oral traditions, African slavery and the slave trade, and early African-European interactions.

0101	Paul Landau TuTh 11:00am - 12:15pm	Seats (Total: 40) KEY 0126	

HIST132 **Fighting Slavery**

An examination of the different tools and tactics, means and methods that Americans have used to escape slavery or try to eliminate it.

0101	Richard Bell MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 23) ESJ 2204 TLF 2108	Discussion
0102	Richard Bell MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 23) ESJ 2204 TLF 2108	Discussion
0103	Richard Bell MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 23) ESJ 2204 TLF 2108	Discussion
0104	Richard Bell MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 23) ESJ 2204 TLF 2108	Discussion
0105	Richard Bell MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 23) ESJ 2204 TLF 2108	Discussion
0106	Richard Bell MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 23) ESJ 2204 TLF 2108	Discussion
FC01	Richard Bell MW 3:00pm - 4:15pm	Seats (Total: 6) JMZ 0118	

HIST134 **Spies, Assassins, Martyrs, and Witches: Famous Trials in American History**

Examination of some of the most famous trials in American history and their enduring hold on the imagination.

0101	Michael Ross TuTh 9:30am - 10:20am W 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2108	Discussion
0102	Michael Ross TuTh 9:30am - 10:20am W 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 2108	Discussion
0103	Michael Ross TuTh 9:30am - 10:20am W 11:00am - 11:50am	Seats (Total: 23) KEY 0106 TLF 2108	Discussion
0104	Michael Ross TuTh 9:30am - 10:20am W 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 2108	Discussion
0105	Michael Ross TuTh 9:30am - 10:20am W 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 2108	Discussion
0106	Michael Ross TuTh 9:30am - 10:20am W 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 TLF 2108	Discussion

HIST134S **Spies, Assassins, Martyrs, and Witches: Famous Trials in American History**

Examination of some of the most famous trials in American history and their enduring hold on the imagination.

0201	Michael Ross TuTh 9:30am - 10:20am W 11:00am - 11:50am *Restricted to students in the M-Law program.*	Seats (Total: 27) KEY 0106 TYD 1108	Discussion

HIST135 **Civil Discourse or Urban Riot: Why Cities Don't (Often) Explode**

Cross-listed with: JWST289E. Credit only granted for: HIST135 or JWST289E.

An examination of the mechanisms that promote peaceful co-existence in urban societies and a discussion of how and why city streets sometimes become violent.

0101	Bernard Cooperman MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 23) ESJ 0215 KEY 0100	Discussion

0102	Bernard Cooperman MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 23) ESJ 0215 KEY 0100	Discussion
0103	Bernard Cooperman MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 23) ESJ 0215 KEY 0100	Discussion

HIST136 **Moneyland: Business in American Culture**

An exploration of American business culture and institutions from colonial times to the present with emphasis on how inherited and acquired identities (social capital) have shaped Americans' experiences as entrepreneurs, managers, workers, and consumers.

0101	David Sicilia MW 2:00pm - 2:50pm M 10:00am - 10:50am	Seats (Total: 23) BPS 1250 TLF 1101	Discussion
0102	David Sicilia MW 2:00pm - 2:50pm M 11:00am - 11:50am	Seats (Total: 23) BPS 1250 TLF 1101	Discussion
0103	David Sicilia MW 2:00pm - 2:50pm M 1:00pm - 1:50pm	Seats (Total: 23) BPS 1250 SYM 0209	Discussion
0104	David Sicilia MW 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 23) BPS 1250 TLF 1101	Discussion
0105	David Sicilia MW 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 23) BPS 1250 TLF 1101	Discussion
0106	David Sicilia MW 2:00pm - 2:50pm W 1:00pm - 1:50pm	Seats (Total: 23) BPS 1250 SYM 0209	Discussion

HIST200 **Interpreting American History: Beginnings to 1877**

Credit only granted for: HIST156 or HIST200. Formerly: HIST156.

The United States from colonial times to the end of the Civil War. Establishment and development of American institutions.

0101	Holly Brewer TuTh 2:00pm - 2:50pm W 9:00am - 9:50am	Seats (Total: 23) MMH 1400 TLF 1103	Discussion
0102	Holly Brewer TuTh 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 23) MMH 1400 TLF 1103	Discussion
0103	Holly Brewer TuTh 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 23) MMH 1400 TLF 1103	Discussion
0104	Holly Brewer TuTh 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 23) MMH 1400 TLF 1103	Discussion
0105	Holly Brewer TuTh 2:00pm - 2:50pm W 1:00pm - 1:50pm	Seats (Total: 23) MMH 1400 TLF 1103	Discussion
0106	Holly Brewer TuTh 2:00pm - 2:50pm W 2:00pm - 2:50pm	Seats (Total: 23) MMH 1400 TLF 2103	Discussion
FC01	Holly Brewer Th 3:00pm - 4:15pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 22) TLF 0110 ONLINE	Discussion

HIST201 **Interpreting American History: From 1865 to the Present**

Credit only granted for: HIST157 or HIST201. Formerly: HIST157.

The United States from the end of the Civil War to the present. Economic, social, intellectual, and political developments. Rise of industry and emergence of the United States as a world power.

0101	Howard Smead MW 12:00pm - 12:50pm M 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0102	Howard Smead MW 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion

0103	Howard Smead MW 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0104	Howard Smead MW 12:00pm - 12:50pm W 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0105	Howard Smead MW 12:00pm - 12:50pm W 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0106	Howard Smead MW 12:00pm - 12:50pm W 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0107	Howard Smead MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0108	Howard Smead MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0109	Howard Smead MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0201	Robert Chiles TuTh 12:30pm - 1:20pm Tu 9:30am - 10:20am	Seats (Total: 23) SHM 2102 TLF 2103	Discussion
0202	Robert Chiles TuTh 12:30pm - 1:20pm Tu 11:00am - 11:50am	Seats (Total: 23) SHM 2102 TLF 2103	Discussion
0203	Robert Chiles TuTh 12:30pm - 1:20pm Tu 2:00pm - 2:50pm	Seats (Total: 23) SHM 2102 SQH 1121	Discussion

0204	Robert Chiles TuTh 12:30pm - 1:20pm Th 9:30am - 10:20am	Seats (Total: 23) SHM 2102 TLF 2103	 Discussion
0205	Robert Chiles TuTh 12:30pm - 1:20pm Th 11:00am - 11:50am	Seats (Total: 23) SHM 2102 TLF 2103	 Discussion
0206	Robert Chiles TuTh 12:30pm - 1:20pm Th 2:00pm - 2:50pm	Seats (Total: 23) SHM 2102 SQH 1111	 Discussion
FC02	Robert Chiles TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 26) ASY 3207	

HIST208A **Historical Research and Methods Seminar; Doctors & Diseases: Medical Sciences and Technologies in American History, 1860-2000**

(Perm req)

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

Restriction: Permission of department. Conduct research in the field of medical history. Focuses on major themes and methods in the field, including theories of the social construction of illness, approaches to studying technological change in medicine, and techniques for developing patient-centered histories. Also recommends best practices for research and writing.

0101	Briceno Bowrey TuTh 9:30am - 10:45am	Seats (Total: 12) KEY 0117	
0201	Briceno Bowrey TuTh 11:00am - 12:15pm	Seats (Total: 12) KEY 0117	

HIST208Y **Historical Research and Methods Seminar; Latin America and the United States: Power, Knowledge, and Culture in the 20th Century**

(Perm req)

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

Restriction: Permission of department. Relations of the United States and Latin America during the twentieth century. Specific topics of discussion include the Mexican Revolution, 1954 Guatemala, the Cuban Revolution, and 1973 Chile. Students will research topics related to the relations of power, knowledge, and culture between Latin American and U.S. actors using primary sources in areas such as diplomacy, politics, science, arts, etc.

0101	Diego Hurtado Torres MW 2:00pm - 3:15pm	Seats (Total: 12) TLF 2100
0201	Diego Hurtado Torres MW 3:30pm - 4:45pm	Seats (Total: 12) TLF 2100

HIST208Z **Historical Research and Methods Seminar; How Revolutionary: Upheavals in History**

(Perm req)

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

Restriction: Permission of department. We will examine the major historiographical trends and debates in the study of revolutions, ranging from the long eighteenth century's Age of Revolutions through the twentieth century's independence movements and social revolutions. After completing this historiographic training, students will conduct original research related to revolution in the 18th, 19th, or 20th centuries.

0101	Hannah Nolan TuTh 12:30pm - 1:45pm	Seats (Total: 12) KEY 0117
0201	Hannah Nolan TuTh 2:00pm - 3:15pm	Seats (Total: 12) KEY 0117

HIST215 **Women in Western Europe to 1750**

Credit only granted for: HIST215 or HIST219A. Formerly: HIST219A.

An exploration of the theories and rhetoric about the nature and existence of women in the West, focusing on the experience of women from the hegemony of Classical Greece to the French Revolution, an era that marks the beginning of a continuous process of change. Emphasis will be on the period between 1250 and 1750, when the Western European world was fundamentally altered in every aspect and in every level of society, culture, and government.

0101	Sabrina Baron TuTh 2:00pm - 3:15pm	Seats (Total: 40) KEY 0103

HIST219Q **Special Topics in History; American Social Violence**

The January 6, 2021 storming of the U.S. Capitol was a strong reminder of our propensity for collective violence. This course examines the country's long history of political and social violence, with the goal of explaining why we have always been such a violent nation.

0101	Howard Smead MW 4:00pm - 5:15pm	Seats (Total: 30) SKN 1115

HIST219T **Discovering the World of Ancient Rome**

Cross-listed with: CLAS190. Credit only granted for: CLAS190 or HIST219T.

An exploration of the cultural traits and developments of ancient Roman civilization from its roots in Etruscan culture, through the rise of the Roman Republic, to the expansion of Roman cultural influence in the ancient world and the emergence of the Roman Empire. Drawing upon the evidence of the archaeological remains as well as ancient historical and literary documents, students gain a basic familiarity with the principal monuments and artifacts of ancient Roman civilization, the various institutions and values that characterized the Romans, and the significant historical events that transformed the culture over the course of antiquity.

0101	Jorge Bravo	Seats (Total: 35)
	MW 2:00pm - 3:15pm	JMZ 2206

HIST220 **The Atlantic World in the Age of Exploration, Conquest, and Settlement**

Credit only granted for: HIST219V or HIST220. Formerly: HIST219V.

Study of encounters, exchanges, and clashes between Native Americans, Europeans, and Africans in the early modern Atlantic World. Examines conquest and colonial systems; movement of men and women and mixing of peoples, and the persistence of native folkways.

0101	Alejandro Caneque	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	KEY 0116

HIST224 **Modern Military History, 1494-1815**

Survey of global military history from the European "discovery" of the Americas to the end of the Napoleonic Wars. Explores how the creation of professional armies, advancement of weapons technology, and evolution of military-civilian relations in Europe during these three centuries sparked the "Rise of the West".

0101	Patrick Chung	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	ESJ 1309

HIST226 **Revolution, Regret, and Reform: The People and Principles in American Political History**

Credit only granted for: HONR299G or HIST226. Formerly: HONR299G.

Explores American political history from Independence through the present day. Interrogates the roots of American political ideas, the dynamics of partisan competition, the interaction of class, ethnicity, race, and politics, the evolution of policy preferences, the growth of the state, and the transformation of grassroots expectations and ambitions, among other important themes. By exploring the writings of major figures as well as the preferences of anonymous voters--and everyone in between, this course will help students identify the overarching themes and the important forgotten moments in our nation's political development. Students will end the semester armed with a mastery of this history, an understanding of the methods of political historians and scholars in related fields, and a contextualization of our contemporary political world.

0101	Robert Chiles	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	KEY 0116

HIST232 **The Historical Development of London**

Restriction: Permission of Study Abroad Office required. Credit only granted for: GNED288 and HIST232. Formerly: GNED288.

Study Abroad in London, England. The history of London, beginning with its foundation by the Romans, continuing with the city's progressive political and cultural domination of England, the British Isles and the British Empire, and concluding with a look at the city in the 20th century. Students look at London through the eyes of contemporaries and historians while forming their own impressions of the city during course-based walking tours of the city.

Contact department for information to register for this course.

HIST234 **Invaders, Conquerors, Usurpers: A History of Pre-Modern Britain to 1485**

British history from Roman times to the 15th century. The Anglo-Saxon, Scandinavian, and Norman invasions; the coming of Christianity; Magna Carta, the development of Parliament, legal institutions, and the Common Law; the decline of medieval kingship.

0101	Sabrina Baron	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	KEY 0103

HIST236 **From Peacocks to Punks: Modern Britain from 1688 to Today**

British history from the Glorious Revolution of 1688 to the present. The revolution of 1688; the structure of 18th-century society and politics; economic and social change in the Industrial Revolution; 19th- and 20th-century political and social reform; imperialism; the impact of the First and Second World Wars on British society.

0101	Julie Taddeo	Seats (Total: 40)
	TuTh 9:30am - 10:45am	KEY 0103

HIST237 **Russian Civilization**

An overview of Russian history stressing the main lines of development of the Russian state and the evolution of Russian culture to the present day.

0101	Mikhail Dolbilov	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TLF 1101

HIST247 **Modern India: From the British Raj to the World's Largest Democracy**

Credit only granted for: HIST219J or HIST247. Formerly: HIST219J.

Surveys the making of modern India, as well as Pakistan and Bangladesh, from the onset of colonialism in the 18th century to the present day. Focuses on three key themes: state formation and the persistence of regional identities; the negotiation of religious, ethnic, caste, and gender differences; and economic development and inequality.

0101	Mircea Raianu	Seats (Total: 30)
	MW 2:00pm - 3:15pm	TLF 1101

HIST250 **History of Colonial Latin America**

Cross-listed with: LACS250. Credit only granted for: LASC250, HIST250, OR LACS250. Formerly: LASC250.

Introductory survey of the history of Latin America from pre-Columbian Indian cultures to the beginning of the wars for independence (ca. 1810), covering cultural, political, social, and economic developments. Major themes include conquest, colonialism, indigenous culture, African slavery, religion, race and ethnicity, and gender ideologies.

0101	David Sartorius	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	TYD 0101

HIST254 **African-American History to 1865**

Cross-listed with: AASP298C. Credit only granted for: HIST254 or AASP298C.

Survey of the principal developments in the history and culture of the peoples of African descent in colonial North America and the United States to 1865. Examines the African past, the Atlantic slave trade, variation in slavery, the growth of free black communities, the transformations of families and cultural forms, and patterns of resistance.

Cross-listed with AASP298C. Credit will be granted for AASP298C or HIST 254.

0101	Christopher Bonner	Seats (Total: 40)
	MW 2:00pm - 3:15pm	KEY 0116

HIST261 **Medicine in an Age of Empires, 1500-1800**

An introduction to the broad shifts in European medicine of early modern period, a period that saw the extension of overseas empires and the emergence of medicine as a profession. The course offers a thematic and comparative look at the intertwined experiences of disease, empire, and global commerce that reshaped expectations of what medicine could or should do, for whom, and at what cost.

0101	Zachary Dorner	Seats (Total: 40)
	MW 2:00pm - 3:15pm	KEY 0103

HIST266 **The United States in World Affairs**

A study of the United States as an emerging world power and the American response to changing status in world affairs. Emphasis on the relationship between internal and external development of the nation.

0101	Howard Smead TuTh 2:00pm - 3:15pm	Seats (Total: 40) KEY 0126	

HIST269 **Special Topics in Study Abroad II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269M **Special Topics in Study Abroad II; History of Modern Italy**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269Y **Special Topics in Study Abroad II; Rome: Republic and Empire**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST284 **East Asian Civilization I**

An interdisciplinary survey of the development of East Asian cultures. An historical approach drawing on all facets of East Asian traditional life, to gain an appreciation of the different and complex cultures of the area.

0101	Ting Zhang MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 23) SYM 0200 EDU 3236	 Discussion
0102	Ting Zhang MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 23) SYM 0200 LEF 1171	 Discussion
0103	Ting Zhang MW 11:00am - 11:50am F 2:00pm - 2:50pm	Seats (Total: 23) SYM 0200 LEF 1171	 Discussion

HIST289C **Mirror of Democracy: The Golden Age of Athens**

0101	Elizabeth Conner MW 3:30pm - 4:45pm	Seats (Total: 40) KEY 0126	

HIST289O **Lawlessness: From Pirates to Body-snatchers, Exploring the Legitimacy of Illicit Activity**

Explores motives of and responses to the lawless behavior of pirates, body snatchers, bandits, vigilantes, smugglers and others worldwide from the 1500s to today.

0101	Anne Rush TuTh 12:30pm - 1:20pm F 10:00am - 10:50am	Seats (Total: 23) SYM 0200 KEY 0125	Discussion
0102	Anne Rush TuTh 12:30pm - 1:20pm F 11:00am - 11:50am	Seats (Total: 23) SYM 0200 KEY 0125	Discussion
0103	Anne Rush TuTh 12:30pm - 1:20pm F 1:00pm - 1:50pm	Seats (Total: 23) SYM 0200 ASY 3217	Discussion
FC01	Anne Rush TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) TLF 1103	

HIST289R **Pocketbook Politics: A History of American Buying and Selling**

Provides a thematic approach to consumerism as it emerged in the United States over the course of three centuries. The history of consumption is a prism through which many aspects of social and political life may be viewed. How does what we wear, what we listen to, or what we eat shape our identities?

0101	Katarina Keane TuTh 2:00pm - 2:50pm W 9:00am - 9:50am	Seats (Total: 23) SYM 0200 TLF 1101	Discussion
0102	Katarina Keane TuTh 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 23) SYM 0200 TLF 1101	Discussion
0103	Katarina Keane TuTh 2:00pm - 2:50pm W 1:00pm - 1:50pm	Seats (Total: 23) SYM 0200 TLF 1101	Discussion

HIST289T **Jesus, Mani, and Muhammad: The Dynamics of New Religious Movements**

Cross-listed with: RELS273. Credit only granted for: RELS273 or RELS289M or HIST289T. Formerly: RELS289M.

We examine three significant ancient religious figures: Jesus (d. 30s CE), Mani (d. 276 CE), and Muhammad (d. 632). All three were founders of long-lasting religions that were part of a dramatic change in the society and religion of the ancient world. Special areas of focus: the biographies of these founding figures, and how we know them; a historical approach to religious founders; and the sociology of new religious movements.

0101	Hayim Lapin TuTh 9:30am - 10:20am F 9:00am - 9:50am	Seats (Total: 23) SYM 0200 KEY 0100	 Discussion
0102	Hayim Lapin TuTh 9:30am - 10:20am F 10:00am - 10:50am	Seats (Total: 23) SYM 0200 KEY 0100	 Discussion
0103	Hayim Lapin TuTh 9:30am - 10:20am F 12:00pm - 12:50pm	Seats (Total: 23) SYM 0200 KEY 0100	 Discussion

HIST299 **Directed Research**

(Perm req)

Closely guided research in primary sources for students currently enrolled in selected 100- or 200-level surveys in the Department of History.

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST310 **History of South Africa**

Formerly: HIST419E.

Explores the roots of Apartheid and the anti-Apartheid movement from precolonial times to the present: the social history of work and identity, the rise of kingdoms (Zulu, Sotho), conquest and colonial administration, urban and rural mass politics, gender relations, and the transition to democracy.

0101	Paul Landau TuTh 2:00pm - 3:15pm	Seats (Total: 30) TLF 1101

HIST319J **Special Topics in History; Confederate Monuments in Historical Perspective**

Examines the 19th- and early 20th-century campaign to memorialize Confederate soldiers, Confederate leaders, and the Confederate cause. Particular attention to the organizations that played leading roles, the multiple activities in which they were engaged, and the cultural dominance they achieved, as well as counter-memories that contested Confederate memorialization.

0101	Leslie Rowland TuTh 3:30pm - 4:45pm	Seats (Total: 20) ONLINE

HIST319K **Special Topics in History; Israel's Occupation**

Cross-listed with ISRL349L. Credit only granted for HIST319K or ISRL349L. Examines the history of Israel's occupation since 1967, the colonization of Palestinian land for the construction of Jewish settlements, as well as Palestinian resistance. Other topics examined are the role of human rights NGOs, international law, archaeology and the environmental impact of the occupation.

0101	Shay Hazkani	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	KEY 0100

HIST319M **Special Topics in History; Slavery in Latin America**

0101	David Sartorius	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TWS 0207

HIST319T **Special Topics in History; Witchcraft and Magic**

Explores the genesis and impact of the "Witch Craze" in Europe from the fourteenth to the late seventeenth centuries.

0101	Philip Soergel	Seats (Total: 30)
	TuTh 9:30am - 10:45am	KEY 0126

HIST319Y **Special Topics in History; Making of Middle Eastern Identities**

Cross-listed with HIST319Y. Credit only granted for ARAB398M or HIST319Y. Taught in English.

0101	Rachel Schine	Seats (Total: 15)
	TuTh 9:30am - 10:45am	HJP 2118

HIST326 **The Roman Republic**

Ancient Rome 753-44 B.C., from its founding to the assassination of Julius Caesar. Rome's conquest of the Mediterranean world, the social and political forces that brought it about, and the consequent transformation and decline of the Republic.

0101	Andrew White	Seats (Total: 40)
	TuTh 9:30am - 10:45am	TYD 2106

HIST328F **Selected Topics in History; The Right in Israel: A Historical Examination**

Cross-listed with ISRL349D and GVPT368I. Credit only granted for ISRL349D, HIST328F, or GVPT368I. Israel has been moving towards the political Right during the last 30 years, as became obvious in its last election in November 2022. This course explores the history of that movement, beginning before Israel became a state, but focusing primarily on 1967 to the present. No previous knowledge of Israeli history required. Contact the instructor for more information.

0101	Paul Scham	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	JMZ 1103

HIST329E **Special Topics in History; Black Women in United States History**

Cross-listed with WMST314 and HIST329E. Credit granted for AASP313, HIST329E, or WMST314. Black American women's history from slavery to the present. Focused on gaining a fuller understanding of the effect of race, class and gender on the life cycles and multiple roles of Black women as mothers, daughters, wives, workers and social-change agents.

0101	Elsa Barkley Brown Th 4:00pm - 6:30pm	Seats (Total: 40) KEY 0126

HIST329F **Special Topics in History; Religious and Political Transformations in Modern Jewish History**

Cross-listed with JWST319V. Credit only granted for HIST329F or JWST319V. Analysis of the social, cultural, and political forces that led to the emancipation of the Jews--the granting to them of equal rights with all other inhabitants of the countries in which they lived-- and the integration of a once-detested ethnic-religious group into European society. The focus will be Europe, where most Jews lived in the period between 1650 and1870.

0101	Marsha Rozenblit TuTh 11:00am - 12:15pm	Seats (Total: 30) KEY 0100

HIST329O **Special Topics in History; Ideologies, Parties, and Social Movements in the Modern Middle East**

0101	Peter Wien TuTh 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 30) KEY 0100 ONLINE

HIST332 **Renaissance Europe**

Cross-listed with: RELS342. Credit only granted for: HIST332 or RELS342.

Intellectual developments in Italy and Northern Europe from 1300 to 1550 and their influence on the arts and religion; social and economic trends, including the rise of the commercial economy in cities; the family and the role of women in society; expansion of Europe overseas and the beginnings of colonization; emergence of the state and consequent changes in political theory.

0101	Stefano Villani TuTh 3:30pm - 4:45pm	Seats (Total: 30) TLF 1101

HIST339C **Special Topics in History; War, Genocide, and Resilience in Africa's Great Lakes Region**

Thematic exploration of a topic in history.

Examines postcolonial violence in Burundi, Rwanda, Uganda, and the Democratic Republic of Congo in historical and comparative perspective. Emphasis is also placed on the social, political, and economic consequences of these conflicts, as well as the diverse approaches to peacebuilding, justice, and commemoration that can be seen across the region.

0101	Erin Mosely	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TLF 1101

HIST339I **Special Topics in History; Missionary Dreams/Missionary Nightmares: A Global History of Protestant Missions**

Thematic exploration of a topic in history.

Protestant missionary activity from the seventeenth century onwards in a global perspective. We will investigate the relations between missionary activity, imperialism, and the "civilizing project" of the West with particular reference to British missionary organizations. The real and perceived risks and difficulties faced by missionaries, from dying of malaria to being eaten by cannibals, will be discussed to understand the ethos that has animated the Protestant missionary commitment over the centuries.

0101	Stefano Villani	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TLF 1103

HIST339X **Special Topics in History; US Cultural History since 1865**

Thematic exploration of a topic in history.

In 1865 the United States was a mostly rural nation that was by and large dominated by male, white, Christian elites and was constituted by separated, and loosely connected "island communities". The last 150 years have radically changed that nation. We shall examine the way American culture and the work of a variety of American intellectuals both reflected and directed this momentous revolution.

0101	Saverio Giovacchini	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TLF 1103

HIST355 **Civil War and the Rise of Industrialization, 1860-1900**

Credit only granted for: HIST355 or HIST364.

Civil War, sectional and class conflicts and their impact on American life and institutions from the beginning of the Civil War through the Gilded Age; social, economic, and political reconstruction of the Union; industrialization, urbanization, and technological changes.

0101	Robert Chiles	Seats (Total: 40)
	TuTh 9:30am - 10:45am	KEY 0116

HIST356 **Emergence of Modern America, 1900-1945**

The emergence of modern institutions and identities, 1900-1945. These institutions may include corporate enterprises and the welfare state; identities include homosexuality, the New Woman, and the New Negro.

Contact department for information to register for this course.

HIST357 **Recent America: 1945-Present**

American history from the inauguration of Harry S. Truman to the present with emphasis upon politics and foreign relations, but with consideration of special topics such as radicalism, conservatism, and labor.

0101	Howard Smead	Seats (Total: 40)
	MW 2:00pm - 3:15pm	KEY 0126

HIST361 **Metropolitan Change and Modern America: Cities, Suburbs, Hinterlands**

Credit only granted for: HIST419B or HIST361. Formerly: HIST419B.

An exploration of the forces that have transformed metropolitan and rural life since the mid-19th century. What role have politics, policy, economics, and ideology/culture played in creating an urbanized and then a "suburbanized" nation?

0101	David Freund	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TLF 1101

HIST369F **Special Topics in Study Abroad III; Caesar, Cicero and the Collapse of the Roman Republic**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST377 **Mizrahi Identity in Israel**

Cross-listed with: ISRL330, JWST334. Credit only granted for: JWST319D, JWST334, HIST377, HIST329Z, ISRL329M, or ISRL330. Formerly: ISRL329M.

It is impossible to understand Israeli society today without examining the Mizrahi experience. Despite the common misconception that Israel is predominantly made up of Jews from European origin, the fact of the matter is that Jews of Mizrahi origin, whose parents and grandparents immigrated to Israel from the Middle East and North Africa, represent a major part of the Israeli population. Moreover, Ashkenazi-Mizrahi relations continue to be a major source of tension in Israeli politics, and issues of race continue to come up on social media and polarize the Israeli society. This course brings to light narratives of Mizrahi identity in Israel and explores the trajectory of the Mizrahi struggle for equality and against racism through its various milestones: the 1959 Wadi Salib Revolt, the Black Panthers Movement in the 1970s, the emergence of the Israeli Sephardi-Orthodox party Shas, and the new wave of Mizrahi activism in the 21st century.

0101	Shay Hazkani	Seats (Total: 20)
	MW 11:00am - 12:15pm	KEY 0116

HIST386 **Experiential Learning**

(Perm req)

Restriction: Permission of ARHU-History department; and junior standing or higher.

The History Department's Internship program. Pre-professional experience in historical research, analysis, and writing in a variety of work settings.

Contact department for information to register for this course.

HIST395 **Honors Colloquium I**

(Perm req)

Restriction: Permission of ARHU-History department; and must be in History program.

History and theory: the conceptual underpinnings of the historical discipline. Students evaluate several contrasting theories of history. Prerequisite for other honors courses.

0101	Clare Lyons	Seats (Total: 12)
	Tu 1:00pm - 2:50pm	TLF 2100
	Contact instructor or department for details.	

HIST398 **Honors Thesis I**

Individual research and preparation of History Honors Theses.

Contact department for information to register for this course.

HIST399 **Honors Thesis II**

Individualized research and preparation of History Honors Theses.

Contact department for information to register for this course.

HIST408D **Senior Seminar; Empire and Nationalism in Russia: Looking From the Borderlands**

(Perm req)

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

Restriction: Permission of department.

0101	Mikhail Dolbilov	Seats (Total: 12)
	Th 12:30pm - 3:00pm	TLF 2108

HIST408I **Senior Seminar; Politics, Protests, and Social Movements in 20th Century America**

(Perm req)

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

Restriction: Permission of department.

0101	Robyn Muncy	Seats (Total: 12)
	Tu 12:30pm - 3:00pm	TLF 2108

HIST408T **Senior Seminar; Writing Lives: History and Biography**

(Perm req)

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

Restriction: Permission of department.

0101	Saverio Giovacchini	Seats (Total: 12)
	M 9:00am - 11:30am	TLF 2108

HIST408Z **Senior Seminar; Commodities and Globalization**

(Perm req)

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

Restriction: Permission of department.

0101	Zachary Dorner	Seats (Total: 12)
	W 10:00am - 12:30pm	TLF 2100

HIST412 **History of Women and Gender in Africa**

Credit only granted for: HIST412 or HIST428L. Formerly: HIST428L.

An examination of socio-economic and cultural change in Africa from the dawn of the colonial era in the 19th century to independence in the mid-twentieth century. Major focus on how African women understood and responded to the expansion of European empires, changes in the colonial economy, and impact of westernization and urbanization.

0101	Erin Mosely	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	JMZ 2206

HIST417 **Colonial Encounters: Natives, Spaniards, and Africans in the New World**

Recommended: HIST220 and HIST250. Credit only granted for: HIST417 or HIST428Y. Formerly: HIST428Y.

An exploration of the discourses and practices of the Spanish colonial project in the New World and the ways in which Indians and Blacks were incorporated into or excluded from that project. Also examines native and African resistance and adaptation to Spanish rule, and the process of transformation and hybridization of Spanish, native and African cultures in Spanish America. An analysis of recent historiographical developments that have profoundly changed the understanding of the Spanish conquest and colonization of the New World.

0101	Alejandro Caneque	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TLF 1103

HIST419P **Special Topics in History; Origins of Ethnic Cleansing in Russia/USSR**

We will discuss nationality policies in the Russian Empire and in the Soviet Union, with a focus on large-scale violence practiced by the state against various ethnic/ethno-religious/ethno-social groups and minorities. The key theme concerns the ways in which major changes in governance, population control, and surveillance engendered persecutions, deportations, or even genocides.

0101	Mikhail Dolbilov	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	TLF 0103

HIST419X **Special Topics in History; Corporations on Trial: Histories of Law, Capitalism, and Human Rights**

Examines legal challenges to corporations around the world over the past 200 years through selected case studies. Topics include globalization, empires, the world wars, and the emergence of human rights, corporate social responsibility, and environmental justice.

0101	Mircea Raianu	Seats (Total: 20)
	Tu 12:30pm - 1:45pm Class time/details on ELMs	TLF 2103 ONLINE

HIST419Z **Special Topics in History; China's Long Twentieth Century: Economic and Social Changes**

Introduces major themes and debates in modern Chinese history and prepares high-level undergraduate and graduate students for further study in the field.

0101	Yujie Li	Seats (Total: 15)
	Th 3:30pm - 6:00pm	TLF 2100

HIST428E **Selected Topics in History; Personal Stories of Migrations: (Re)Creating Communities Amidst Dramatic Change**

Cross-listed with JWST429C and JWST648C. Credit only granted for JWST429C, JWST648C, or HIST428E. As migrants struggle to establish themselves in new social, economic, and political environments they must cope with the trauma that drove them from their homes and with the culture shock of their new lands. They require resilience to reinvent themselves, to seize new opportunities, and to build new lives and communities. We will use oral histories, autobiographical writings, as well as paintings, photos and other visual expressions of self, to explore the experience of Jewish immigrants to North America. Personal stories will give us new insights into the long history of Jewish communities in North America.

0101	Vardit Lightstone	Seats (Total: 15)
	M 4:00pm - 6:30pm	HBK 0108

HIST428G **Selected Topics in History; Islamic Reformism**

Cross-listed with RELS439A. Credit only granted for HIST428G, HIST779C, or RELS439A. Islam is far from a monolithic religious tradition. We will debate a wide range of perspectives on the various facets of Islamic Reform and modernization in the 18th-21st centuries. Students will learn to appreciate the diversity of Islamic thought in the contemporary world and its manifestations in daily practice, and in social, political, regional, and international conflicts.

0101	Peter Wien	Seats (Total: 10)
	Tu 3:30pm - 6:00pm	TLF 2100

HIST428O **Selected Topics in History; Sex and Sexuality in Early Modern Europe**

Explores the changes in family life, reproductivity, sexuality, and gender from the later Middle Ages (fourteenth and fifteenth centuries) until the late eighteenth century. Topics to be examined include civic prostitution, sexual renunciation, spiritual marriage, the medicalization of pregnancy and childbirth, and birth control.

0101	Philip Soergel	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	KEY 0100

HIST428P **Selected Topics in History; Trashed! Garbage and Recycling in History**

Students will explore how humans have produced, dealt with, and ignored trash and recycling in history. Case studies from North America, Europe, and Asia from the 19th and 20th century will help us understand how the role of garbage in society has changed over time. The emphasis will be on the wider social, political, environmental, and material systems that shape waste.

0101	Thomas Zeller	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	KEY 0116

HIST429A **Special Topics in History; Victoria's Secrets: Sex and Class in Nineteenth Century Britain**

Queen Victoria, Darwin, Sherlock Holmes and Jack the Ripper: meet some of the Victorians who continue to captivate our historical imagination and learn the truth about sex, class, and race in 19th Century Britain.

0101	Julie Taddeo	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	KEY 0103

HIST429Z **Special Topics in History; American Money: Rethinking Finance and its History**

Standard macroeconomic treatments of money and finance cannot be supported by the historical record. While most textbooks say otherwise, money has its origins in credit instruments, and meanwhile its value and uses are inseparable from the public authority that issues it. We will briefly revisit that well-documented history and debates among scholars about money's origins and nature. Then we'll look at case studies--from the colonial period to the present (from the issue of the first paper bills to Bitcoin)--to examine money's role in shaping American development.

0101	David Freund	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	TLF 2103

HIST454 **Constitutional History of the United States: From Colonial Origins to 1865**

The interaction of government, law, and politics in the constitutional system. The nature and purpose of constitutions and constitutionalism; the relationship between the constitution and social forces and influences, the way in which constitutional principles, rules, ideas, and institutions affect events and are in turn affected by events. The origins of American politics and constitutionalism through the Constitutional Convention of 1787. Major constitutional problems such as the origins of judicial review, democratization of government, slavery in the territories, secession, and civil war.

0101	Michael Ross	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	SQH 1105

HIST460 **History of Labor in the United States**

The American working class in terms of its composition; its myths and utopias; its social conditions; and its impact on American institutions.

0101	Julie Greene	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TLF 2108

HIST466 **Immigration and Ethnicity in the U.S.**

Credit only granted for: AAST498L or HIST466.

Seminar exploring historical problems relating to US immigration, race, and ethnicity since 1848, with emphasis on cultural impacts of migration on immigrants, their children, and U.S. society.

0101	Robert Chiles	Seats (Total: 20)
	Th 2:00pm - 4:30pm	TLF 2103

HIST467 **Women and Reform Movements in the Twentieth-Century United States**

Recommended: HIST201, HIST211, or HIST255. Credit only granted for: HIST467 or HIST429E. Formerly: HIST429E.

Investigation of women's participation in such twentieth-century reform movements as the labor movement, the struggle for racial justice, social welfare reform, and women's movements. Will ask how race, class, and gender were implicated in the ways that women agitated for social political change.

0101	Robyn Muncy TuTh 9:30am - 10:45am	Seats (Total: 30) KEY 0100

HIST481 **A History of Modern China**

Modern China from 1644 to the People's Republic of China. Emphasis on the coming of the West to China and the various stages of the Chinese reaction.

Contact department for information to register for this course.

HIST482 **History of Japan to 1800**

Traditional Japanese civilization from the age of Shinto mythology and introduction of continental learning down to the rule of military families, the transition to a money economy, and the creation of a townsmen's culture. A survey of political, economic, religious, and cultural history.

0101	Louisa Rubinfien MW 3:30pm - 4:45pm	Seats (Total: 30) TLF 1101

HIST499 **Independent Study**

(Perm req)

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST601 **History and Contemporary Theory**

An introduction to contemporary theories in philosophy, literary criticism, cultural studies, anthropology, and other fields; and analysis of their usefulness to historians.

0101	Bernard Cooperman M 6:00pm - 8:30pm	Seats (Total: 15) TLF 2108

HIST607 **The Teaching of History in Institutions of Higher Learning**

(Perm req)

0101	Quincy Mills Contact instructor or department for details.	Seats (Total: 15)
0201	Holly Brewer Contact instructor or department for details.	Seats (Total: 6)

HIST608A **General Seminar; American History**

(Perm req)

General seminar in student's major field of study (e.g., U.S.; Women and Gender; International, World, and Comparative; Science and Technology; Latin America) exploring the concentration's major issues, topics, and literature.

Prerequisite: permission of department.

0101	Richard Bell W 6:00pm - 8:30pm	Seats (Total: 12) TLF 2108

HIST608N **General Seminar; Global Interaction and Exchange**

General seminar in student's major field of study (e.g., U.S.; Women and Gender; International, World, and Comparative; Science and Technology; Latin America) exploring the concentration's major issues, topics, and literature.

0101	Colleen Woods Tu 3:30pm - 6:00pm	Seats (Total: 12) TLF 2108

HIST610 **Introduction to Museum Scholarship**

Cross-listed with: AMST655, ANTH655, INST653. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

0201	Diana Marsh Th 2:00pm - 4:40pm	Seats (Total: 30) HBK 0103

HIST619A **Special Topics in History; Independent Study**

(Perm req)

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST619B **Special Topics in History; Independent Study**

(Perm req)

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST619L **Special Topics in History; Readings in the History of Women, Gender, and Sexuality in the US**

0101	Clare Lyons W 3:30pm - 6:00pm	Seats (Total: 12) TLF 2108

HIST619T **Special Topics in History; Global Environmental History**

0101	Thomas Zeller Th 3:30pm - 6:00pm	Seats (Total: 12) TLF 2108

HIST639C **Special Topics in History; Capitalism and Black America in the 20th Century**

Special Topics in History.

0101	Quincy Mills Tu 6:00pm - 8:30pm	Seats (Total: 12) TLF 2108

HIST639J **Special Topics in History; Global Capitalism**

Special Topics in History.

0101	David Sicilia W 6:00pm - 8:30pm	Seats (Total: 12) TLF 2100

HIST708 **Directed Independent Reading for Comprehensive Examinations I**

Directed reading in preparation for Doctoral Comprehensive Examinations. In consultation with their advisors, students will select a number of books and articles from an approved list. Grading for the course will reflect performance on the written and oral sections of the Comprehensive Examinations.

Contact department for information to register for this course.

HIST709 **Directed Independent Reading for Comprehensive Examinations II**

Directed reading in preparation for Doctoral Comprehensive Examinations. In consultation with their advisors, students will select a number of books and articles from an approved list. Grading for the course will reflect performance on the written and oral sections of the Comprehensive Examinations.

Contact department for information to register for this course.

HIST779C **Readings in Middle Eastern History; Islamic Reformism**

Credit only granted for HIST428G, HIST779C, or RELS439A. Islam is far from a monolithic religious tradition. We will debate a wide range of perspectives on the various facets of Islamic Reform and modernization in the 18th-21st centuries. Students will learn to appreciate the diversity of Islamic thought in the contemporary world and its manifestations in daily practice, and in social, political, regional, and international conflicts.

0101	Peter Wien Tu 3:30pm - 6:00pm	Seats (Total: 5) TLF 2100

HIST799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

HIST811 **Museum Scholarship Practicum**

(Perm req)

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: AMST857, ANTH857, INST787. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

IM01	Instructor: TBA	Seats (Total: 12)

HIST819A **Special Topics in History: Independent Research**

(Perm req)

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

Department permission required.

Contact department for information to register for this course.

HIST819B **Special Topics in History: Independent Research**

(Perm req)

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

Department permission required.

Contact department for information to register for this course.

HIST819M **Special Topics in History: Independent Research; United States History: Reconstruction to the Present**

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

0101	Patrick Chung	Seats (Total: 12)
	Th 3:30pm - 6:00pm	TLF 2101

HIST898 **Pre-Candidacy Research**
Contact department for information to register for this course.

HIST899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

HLSA300 **Introduction to Health Policy and Services**

Prerequisite: Must have completed or be concurrently enrolled in SPHL100 or PHSC300. Restriction: Must be in Public Health Science program; and must have earned a minimum of 60 credits. Credit only granted for: SPHL498P or HLSA300. Formerly: SPHL498P.

A multidimensional view of public health policy and services. Through interactive discussion of assigned readings, team-based learning, and supplementary lecture, students will learn about the nature of and development of policy, public health policy, and financing and delivery of health care services. This course will place a significant emphasis on a team-based learning approach to understanding the health care system and health care reform.

0101	Maushami DeSoto, Priscilla Novak	Seats (Total: 18)	
	Class time/details on ELMs W 11:00am - 11:50am	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0102	Maushami DeSoto, Priscilla Novak	Seats (Total: 18)	
	Class time/details on ELMs W 12:00pm - 12:50pm	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0103	Maushami DeSoto, Priscilla Novak	Seats (Total: 18)	
	Class time/details on ELMs W 2:00pm - 2:50pm	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0104	Maushami DeSoto, Priscilla Novak	Seats (Total: 18)	
	Class time/details on ELMs W 3:00pm - 3:50pm	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0105	Maushami DeSoto, Priscilla Novak	Seats (Total: 18)	
	Class time/details on ELMs F 9:00am - 9:50am	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0106	Maushami DeSoto, Priscilla Novak	Seats (Total: 18)	
	Class time/details on ELMs F 10:00am - 10:50am	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		

0107	Maushami DeSoto, Priscilla Novak	Seats (Total: 18)	
	Class time/details on ELMs F 11:00am - 11:50am	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0108	Maushami DeSoto, Priscilla Novak	Seats (Total: 18)	
	Class time/details on ELMs F 12:00pm - 12:50pm	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0109	Priscilla Novak, Maushami DeSoto	Seats (Total: 18)	
	Class time/details on ELMs F 1:00pm - 1:50pm	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
ESG1	Negin Fouladi	Seats (Total: 35)	
	M 2:00pm - 4:30pm	BLD3 3206	
	Restricted to Shady Grove students in the Public Health Science major.		

HLSA484 **Redesigning Health Care: Developing a Clinic to Meet Community Needs**

Restriction: Must have completed a minimum of 60 credits. Additional information: Selected class sessions will be on-site at local organizations such as Mona Clinic in Temple Hills, MD, HAIR Network shops in Hyattsville and the Sarvis Empowerment Cafe in Riverdale. The course also requires off-campus work at nearby locations.

Provides an opportunity for students to learn a key entrepreneurial skill, Human Centered Design Thinking, while helping to build, reshape, redesign and transform delivery of health care in the Mona Center, a new community center and clinic in Prince George's County. This new, modern vision for a health and wellness clinic embraces student involvement in designing, planning and contributing to innovative programs, solutions, and processes to improve the clinic's ability to meet community and patient needs by addressing the social determinants of health as well as traditional clinical health status. Students in the class will develop empathy for patients, providers and other stakeholders, define problems, select a specific problem for intervention, understand problems based on stakeholder input, ideate, reframe and suggest options to solve or address the problem, prototype solutions, test ideas, and make recommendations to inform implementation and ongoing measurement and monitoring of impact.

0101	Stephen Thomas	Seats (Total: 24)	
	F 10:00am - 12:30pm Class time/details on ELMs	SPH 0308 ONLINE	

HLSA601 **Introduction to Health Systems**

An overview of the U.S. health care system using an interdisciplinary perspective. Students will learn about the financing, delivery, and use of healthcare in a historical, economic, and political context. An emphasis will be given to contemporary policy issues and debates, and there will be a focus on inequality within the U.S. health system.

0102	Makeda Walelo, Youngeun Lee Tu 4:00pm - 6:45pm	Seats (Total: 60) SPH 1303
PLH1	Negin Fouladi Class time/details on ELMs *Must be in Public Health Practice and Policy, Online. Golden ID students are not eligible for this section.*	Seats (Total: 40) ONLINE
PLP1	Negin Fouladi Class time/details on ELMs *Must be in Health Administration, Online. Golden ID students are not eligible for this section.*	Seats (Total: 30) ONLINE

HLSA611 **Introduction to Health Equity**

The emerging field of health equity is concerned with understanding the causes and consequences of social disparities in population health. This course is designed to expose students to the foundational issues in health equity from a variety of perspectives. Through weekly meetings and discussion, students will develop familiarity with the major literature in the field of health equity. The course is divided into three sections: (1) Understanding & Addressing Health Disparities; (2) Disparity Populations; and (3) Solutions in Health Equity. Students will gain understanding of the dimensions and sources of health inequality, including race/ethnicity, socioeconomic status, gender, nativity, and sexual minority status. Current policy debates and recent policy developments related to health equity are also briefly discussed.

0101	Kellee White Whilby Th 4:00pm - 6:45pm	Seats (Total: 25) ONLINE

HLSA688 **Independent Study**

(Perm req)

Master or doctoral students who desire to pursue special research problems under the direction of a faculty memeber of the department may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

HLSA702 **Policy and Politics of Health**

Organizational and financial components of the U.S. health care system, including social and political forces that bind the system. Advanced political analysis of the health care system, including key issues and problems.

Although this is an online course, we will have one required in-person visit to Annapolis, Maryland to visit the state legislature organized by the instructor. In addition, there are three online synchronous Q&A sessions that students should participate in remotely and will be arranged by the instructor.

0101	Shurooq Hasan	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

HLSA709 **Graduate Seminar**

The purpose of the course is for doctoral students to present their work to fellow doctoral students and faculty in an informal and supportive environment. Faculty and students provide feedback and suggestions that are helpful to the presenting students. Several sessions each semester are for external speakers on interesting research topics.

0101	Aryn Phillips	Seats (Total: 20)
	Th 12:00pm - 12:50pm	PLS 1113

HLSA711 **Health Economics and Analysis**

Provides an analysis of health and health care services as economic goods. Using microeconomic theories, we will examine the behavior of health care providers, consumers, markets, and firms.

0101	Mir Ali	Seats (Total: 20)
	Tu 7:00pm - 9:45pm	SPH 0303

HLSA720 **Health Law and Ethics**

The legal system helps determine the relationships prevailing among individuals, institutions and governments by setting out the rights, duties and powers of the various parties. This course will look at some of the more important concepts the law uses within the context of health services and public health.

0101	Kerri McGowan Lowrey	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

HLSA725 **Econometrics in Public Health**

Prerequisite: SPHL602; or students who have taken courses with comparable content may contact the department. Additional information: priority enrollment will be given to students at the School of Public Health.

Empirical course to introduce students to econometric methods and their applications in public health.

0101	Luisa Franzini	Seats (Total: 20)
	M 4:00pm - 6:45pm	SPH 3302

HLSA727 **Causal Inference in Health Services Research**

Prerequisite: HLSA725 or permission of instructor.

An overview of the conceptual and empirical tools used to infer causation in health and health care research. Advantages and limitations of experimental and quasi-experimental designs in health services research are discussed and students gain experience through applied exercises.

0101	Michel Boudreaux	Seats (Total: 20)
	W 4:00pm - 6:45pm	SPH 0305

HLSA742 **Quantitative Methods in Healthcare Administration**

Restriction: Must be in the Master of Health Administration program.

The goal of this course is to give students the background needed to interpret and critique statistical methods and results encountered in the healthcare administrative field. In addition, this course will help students develop skills to conduct basic statistical analyses, become familiar with advanced functions in Excel, and acquire the ability to recognize, communicate, and answer health services related research questions.

PLP1	Rick Sperling	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Must be in Health Administration, Online. Golden ID students are not eligible for this section.	

HLSA745 **Public Health Practice and Management**

Examines the relationship of practice and management in performing essential public health services on local, state and national levels.

PLH1	Pallavi Tyagi	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Must be in Public Health Practice and Policy, Online. Golden ID students are not eligible for this section.	

HLSA750 **Healthcare Management Information Systems**

Provides a background and overview of the analysis, design, evaluation, selection, installation, use, and mangement of information systems in health care settings. Students will review the information management function and value of information and the role of information technology in the provision of high quality care and management decision making. Details on computer hardware, software, networking, and telecommunications sufficient for understanding of concepts relevant to health care managers and staff will be addressed.

0501	Melvin Seale	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

PLP1	Melvin Seale	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Must be in Health Administration, Online. Golden ID students are not eligible for this section.	

HLSA765 **Dissertation Proposal Development Seminar**

Recommended: Completed all coursework related to one's dissertation topic; and identified in collaboration with one's dissertation advisor a topic area and potential data set. Restriction: Must be in Health Services Ph.D. (Doctoral) program; or permission of instructor. And must have passed departmental qualifying exam.

Designed to support doctoral students prepare their dissertation proposal and oral presentation. The course is structured around a literature synthesis and development of a modified AHRQ R36 grant application which includes developing a research question and hypotheses, a conceptual model, specific aims, background and significance, and research strategy. The importance of communicating complex ideas through oral and written forms will be emphasized.

0101	Jie Chen	Seats (Total: 15)
	Th 4:00pm - 6:45pm	SPH 0301

HLSA770 **Continuous Quality Improvement in Healthcare**

Designed for the health care professional or administrator involved in quality assurance in health care. Course includes historical beginnings, state-of-the-art, voluntary, governmental efforts, and tools to promote quality assurance.

0101	Suma Nair	Seats (Total: 20)
	Tu 7:00pm - 9:45pm	SPH 0305
PLP1	Lauren Edelstein	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Must be in Health Administration, Online. Golden ID students are not eligible for this section.	

HLSA772 **Healthcare Leadership and Communications**

Health care administrators rely on transformational leadership skills and insights to help their organizations rise to the social financial, public health, and technological challenges of the future. Students will assess and develop their leadership strengths, apply key leadership communication principles, and critically analyze relevent leadership models, exploring their utility in addressing key leadership issues in health care organizations. An underlying theme will be the identification of core values involved in health care delivery, integration of those values in personal and organizational missions, and effective communication to stakeholders.

PLH1	Sherry Maykrantz	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Must be in Public Health Practice and Policy, Online. Golden ID students are not eligible for this section.	
PLP1	Sherry Maykrantz	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Must be in Health Administration, Online. Golden ID students are not eligible for this section.	

HLSA775 **Health Services and Policy Research Methods**

Restriction: Must be in a major in SPHL-School of Public Health; or permission of instructor.

Survey of health services and policy research methods, including conceptualization, measurement, survey sampling, literature review, different research designs, causal inference, data analysis, and interpretation of basic statistics. This is an introductory course in research methods designed for master's students in the School of Public Health.

0101	Dahai Yue	Seats (Total: 20)
	W 4:00pm - 6:45pm	SPH 0303

HLSA778 **Practical Experience in Public Health**

Practical experience providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the experience will depend upon the student's background and career goals.

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

Contact department for information to register for this course.

HLSA786 **Capstone Project in Public Health**

(Perm req)

Prerequisite: Permission of SPHL-Health Services Administration department.

Capstone experience provding opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

HLSA790 **Advanced Methods in Health Services Research**

Prerequisite: SPHL602; or permission of instructor.

Provides an in-depth examination of health services research literature with emphasis on methodological scrutiny and application of methods beyond linear regression such as categorical regression, survival analysis, selection issues, and endogeniety.

0101	Kellee White Whilby W 4:00pm - 6:45pm	Seats (Total: 25) ONLINE

HLSA799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

HLSA898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

HLSA899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

HLSC Integrated Life Sciences Fall 2023

HLSC100 **Students in the University: Integrated Life Sciences**

Restriction: Must be in the Honors College Integrated Life Sciences program. Credit only granted for: EDCP108O, HLSC100, HONR100, or UNIV100H.

In a small classroom setting, Integrated Life Sciences students learn about academic resources on and off campus.

0101	Jalah Townsend Tu 2:00pm - 3:15pm	Seats (Total: 25) LPA 0100
0102	Jalah Townsend W 2:00pm - 3:15pm	Seats (Total: 25) LPA 0100
0103	Jalah Townsend Th 2:00pm - 3:15pm	Seats (Total: 25) LPA 0100
0104	Jalah Townsend M 2:00pm - 3:15pm	Seats (Total: 25) LPA 0100

HLSC280 **Integrative and Quantitative Concepts in Biology**

Prerequisite: BSCI170. Restriction: Must be in the Honors College Integrated Life Sciences program. Credit only granted for: HLSC208 or HLSC280. Formerly: HLSC208.

Designed for entering students enrolled in the Honors College Integrated Life Sciences (ILS) program, this course uses an active learning approach to emphasize inquiry, critical thinking, quantitative reasoning, and hands-on data analysis. This course will cover a variety of bioinformatic related topics, including genome assembly and scaffolding, sequence alignment algorithms, epigenetics, a bioinformatic examination of the central dogma in molecular biology, gene finding, proteomic analysis, the evolution of molecules, cells and organisms, molecular switches, and biological networks.

0101	Najib El-Sayed MW 9:00am - 9:50am F 8:00am - 9:50am	Seats (Total: 22) ESJ 2208 PLS 1121	 Lab
0102	Najib El-Sayed MW 9:00am - 9:50am F 1:00pm - 2:50pm	Seats (Total: 22) ESJ 2208 PLS 1121	 Lab
0103	Najib El-Sayed MW 9:00am - 9:50am F 3:00pm - 4:50pm	Seats (Total: 22) ESJ 2208 PLS 1121	 Lab
0104	Najib El-Sayed MW 9:00am - 9:50am F 8:00am - 9:50am	Seats (Total: 23) ESJ 2208 ONLINE	 Lab

HLSC329 **Teaching Practicum in the Life Sciences**

(Perm req)

A guide and support for the undergraduate teaching assistants (UTAs) in the Integrated Life Sciences (ILS) honors living-learning program. UTAs will develop a greater understanding of teaching and learning in the life sciences, with a focus on the academic values of ILS, by exploring education research and theory, discussing learning strategies and techniques, and reflecting on their practice. Students take this course while serving as a undergraduate teaching assistant in the Integrated Life Sciences courses.

0101	Sabrina Kramer TBA	Seats (Total: 12) LPA 1125

HLSC374 **Mathematical Modeling in Biology**

Prerequisite: MATH131, MATH136, or MATH141. Cross-listed with: BSCI374. Credit only granted for: BSCI374, BSCI474, or HLSC374. Formerly: BSCI474. Additional information: The HLSC374 version of this course is restricted to students in the Honors College Integrated Life Sciences program.

Students will learn empowering mathematical techniques through the understanding of biological models. Models are chosen from a variety of biological disciplines. Mathematical skills that will be developed along the way include: solving non-linear difference equations, eigenvector analysis, and the implementation of these algorithms as computer models.

(Sponsoring Dept.: BIOL) Applies as an upper-level laboratory course to Biological Sciences Specialization Areas: CEBG, ECEV, GENB, and PHNB. Students must pay a $40.00 laboratory materials fee.

0101	Jonathan Simon	Seats (Total: 5)	
	TuTh 9:30am - 10:45am	CCC 1111	
	M 1:00pm - 3:50pm	CCC 1111	Lab

HLTH Health Fall 2023

HLTH124 **Introduction to Behavioral and Community Health**

Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

Required of first semester Community Health majors to expose them to introductory-level concepts within the field of behavioral and community health as well as the Community Health degree program. Includes discussion on the delivery of behavioral and community health at the local, state, national, and global levels; career opportunities in the diverse sectors of the community health field; undergraduate programmatic information; and strategies for student success.

0101	M Reynolds	Seats (Total: 40)
	M 1:00pm - 1:50pm	BPS 1238
	Class time/details on ELMs	ONLINE

HLTH140 **Personal and Community Health**

Meaning and significance of physical, mental and social health as related to the individual and to society; important phases of national health problems; constructive methods of promoting health of the individual and the community.

Cross-listed with HLTH140H. Credit granted for HLTH140 or HLTH140H.

0101	James Butler	Seats (Total: 150)
	MW 2:00pm - 3:15pm	ESJ 0202

HLTH140H **Personal and Community Health**

(Perm req)

Meaning and significance of physical, mental and social health as related to the individual and to society; important phases of national health problems; constructive methods of promoting health of the individual and the community.

Cross-listed with HLTH140. Credit granted for HLTH140 or HLTH140H.

0101	James Butler	Seats (Total: 150)
	MW 2:00pm - 3:15pm	ESJ 0202

HLTH200 **Introduction to Research in Community Health**

Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

An overview of specific components and steps involved in the community health research process. Content includes, foundations of research, sampling, measurement design, and analysis in a community context.

0101	Dina Borzekowski	Seats (Total: 40)
	MWF 2:00pm - 2:50pm	SPH 0308

HLTH230 **Introduction to Health Behavior**

Psychological, social psychological, and sociological approaches to the following health areas: development of health attitudes and behavior, patient-provider interaction and the organization of health care.

Restricted to Majors or non-majors with less than or equal to 45 credits.

0101	Zahra Saboori	Seats (Total: 70)
	Class time/details on ELMs	ONLINE

HLTH264 **Tweets & Likes: Digital Health & Social Media**

Restriction: Must not be in the Community Health program.

Examines the current and potential use of digital health and social media to influence public health. Provides an overview of knowledge, skills and terminology necessary to optimize the effectiveness of these technologies to contribute to the enhancement of individual and community health.

Restricted to non-community health majors.

0101	Melissa Coaxum	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

HLTH264H **Tweets & Likes: Digital Health & Social Media**

(Perm req)

Restriction: Must not be in the Community Health program.

Examines the current and potential use of digital health and social media to influence public health. Provides an overview of knowledge, skills and terminology necessary to optimize the effectiveness of these technologies to contribute to the enhancement of individual and community health.

0101	Melissa Coaxum	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

HLTH285 **Controlling Stress and Tension**

Health problems related to stress and tension. Analysis of causative psychosocial stressors and intervening physiological mechanisms. Emphasis on prevention and control of stress through techniques such as biofeedback, meditation and neuromuscular relaxation.

0101	M Reynolds	Seats (Total: 60)
	TuTh 8:00am - 9:15am	SPH 1312

HLTH285H **Controlling Stress and Tension**

(Perm req)

Health problems related to stress and tension. Analysis of causative psychosocial stressors and intervening physiological mechanisms. Emphasis on prevention and control of stress through techniques such as biofeedback, meditation and neuromuscular relaxation.

0101	M Reynolds	Seats (Total: 5)
	TuTh 8:00am - 9:15am	SPH 1312

HLTH289 **Topical Investigations**

(Perm req)

Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

Contact department for information to register for this course.

HLTH289A **Topical Investigations; Achieving Wellbeing**

Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

We talk a lot about "wellness" these days, prioritizing oneself, reducing stress, and becoming the best version of ourselves, but how do we actually do that? What is the best way to achieve and maintain our greatest possible state of wellbeing? Students will identify the areas where they have strong habits which contribute to their health and areas where they can make concrete changes to improve their health long term and prevent, to the degree possible, diagnosable mental health concerns.

0101	Kassidy Oakes, Tracy Zeeger	Seats (Total: 25)
	W 2:00pm - 2:50pm	ATL 2352

HLTH292 **Community Health Engagement**

Restriction: Must not be in Community Health program.

An exploration and application of basic community health concepts. An integral part of the course is service learning, that includes evaluating, planning and implementing a community health program with a local community partner.

0101	Hector Alcala	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	PLS 1119

HLTH302 **Methods of Community Health Assessment**

Prerequisite: Minimum grade of C- in HLTH200 and EPIB301. Restriction: Must be in a major within the SPHL-Community Health Department.

Examination of research and evaluation tools that can be applied to community health promotion. Includes the application of qualitative research methods, community needs and strengths assessments, asset mapping, and monitoring and evaluating process, outcome and impact evaluation.

0101	Kirsten Stoebenau	Seats (Total: 35)
	TuTh 9:30am - 10:45am	SPH 1301

HLTH302H **Methods of Community Health Assessment**

(Perm req)

Prerequisite: Minimum grade of C- in HLTH200 and EPIB301. Restriction: Must be in a major within the SPHL-Community Health Department.

Examination of research and evaluation tools that can be applied to community health promotion. Includes the application of qualitative research methods, community needs and strengths assessments, asset mapping, and monitoring and evaluating process, outcome and impact evaluation.

0101	Kirsten Stoebenau	Seats (Total: 5)
	TuTh 9:30am - 10:45am	SPH 1301

HLTH306 **Macro Level Influences on Community Health**

Prerequisite: Minimum grade of C- in HLTH124. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

An examination of the effects and influences of policy decisions at the local, state and national levels on community health delivery. Historical and contemporary policy issues will be included with a focus on how the policies have impacted community organizations and the overall health of communities.

0101	Zahra Saboori	Seats (Total: 35)
	Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	ONLINE SPH 0308

HLTH306H **Macro Level Influences on Community Health**

(Perm req)

Prerequisite: Minimum grade of C- in HLTH124. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

An examination of the effects and influences of policy decisions at the local, state and national levels on community health delivery. Historical and contemporary policy issues will be included with a focus on how the policies have impacted community organizations and the overall health of communities.

0101	Zahra Saboori Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 5) ONLINE SPH 0308

HLTH364 **Social Media & Digital Tools for Community & Public Health**

Prerequisite: Completion of HLTH230 with a C- or higher. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department; Restricted to majors who entered the program in Fall 2018 or later.

Examination of the characteristics and uses of media platforms and digital technologies to expand the capability to identify and reduce community and public health risks at all levels of prevention. Also considered will be the potential threats these new media can play on individual choice, privacy, confidentiality, and social influence -- which themselves can pose health threats to community and public health.

0101	Sandra Saperstein TuTh 2:00pm - 3:15pm	Seats (Total: 25) SPH 1302
0201	Devlon Jackson TuTh 2:00pm - 3:15pm	Seats (Total: 25) SPH 0308

HLTH364H **Social Media & Digital Tools for Community & Public Health**

(Perm req)

Prerequisite: Completion of HLTH230 with a C- or higher. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department; Restricted to majors who entered the program in Fall 2018 or later.

Examination of the characteristics and uses of media platforms and digital technologies to expand the capability to identify and reduce community and public health risks at all levels of prevention. Also considered will be the potential threats these new media can play on individual choice, privacy, confidentiality, and social influence -- which themselves can pose health threats to community and public health.

0101	Sandra Saperstein TuTh 2:00pm - 3:15pm	Seats (Total: 5) SPH 1302

0201	Devlon Jackson TuTh 2:00pm - 3:15pm	Seats (Total: 5) SPH 0308	

HLTH366 **Behavioral and Community Issues in Public Health**

Prerequisite: HLTH130, HLTH230, PSYC100, SOCY100, SOCY105, or ANTH260. Restriction: Must be in Public Health Science program; or permission of SPHL-Behavioral & Community Health department. And must have earned a minimum of 45 credits. Additional information: This course will initially be restricted to Public Health Science (PHSC) majors, but could ultimately be opened to other majors, particularly those in HLTH.

The exploration of how social and behavioral science theories and public health concepts and methods can be applied to both the health-illness experience and community interventions.

0101	Evelyn King-Marshall MW 2:00pm - 2:50pm Tu 9:30am - 10:20am *Restricted to Public Health Science students at College Park.*	Seats (Total: 27) ESJ 2208 SPH 0121	Discussion
0102	Evelyn King-Marshall MW 2:00pm - 2:50pm Tu 12:30pm - 1:20pm *Restricted to Public Health Science students at College Park.*	Seats (Total: 27) ESJ 2208 SPH 0121	Discussion
0103	Evelyn King-Marshall MW 2:00pm - 2:50pm W 10:00am - 10:50am *Restricted to Public Health Science students at College Park.*	Seats (Total: 27) ESJ 2208 SPH 0121	Discussion
0104	Evelyn King-Marshall MW 2:00pm - 2:50pm W 11:00am - 11:50am *Restricted to Public Health Science students at College Park.*	Seats (Total: 27) ESJ 2208 SPH 0121	Discussion
0105	Evelyn King-Marshall MW 2:00pm - 2:50pm W 12:00pm - 12:50pm *Restricted to Public Health Science students at College Park.*	Seats (Total: 24) ESJ 2208 SPH 0121	Discussion

0106	Evelyn King-Marshall MW 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 24) ESJ 2208 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		

HLTH377 **Human Sexuality**

The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

Cross-listed with HLTH377H. Credit granted for HLTH377 or HLTH377H.

0101	Jenna Messman Class time/details on ELMs	Seats (Total: 200) ONLINE
ESG1	Jenna Messman Class time/details on ELMs	Seats (Total: 20) ONLINE
	Restricted to students in the Public Health Science Program at USG.	

HLTH377H **Human Sexuality**

(Perm req)

The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

Cross-listed with HLTH377. Credit granted for HLTH377 or HLTH377H.

0101	Jenna Messman Class time/details on ELMs	Seats (Total: 200) ONLINE

HLTH386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of SPHL-Behavioral & Community Health department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

HLTH389 **Topical Investigations**

(Perm req)

Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

Contact department for information to register for this course.

HLTH391 **Making a Difference: Applying Community Health**

(Perm req)

Prerequisite: SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, EPIB301, EPIB315, BSCI170, BSCI201, and HLTH302. Students must have completed or be concurrently enrolled in HLTH364. Corequisite: HLTH490. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The exploration and application of community health concepts including theoretical models, advocacy, cultural competency, asset mapping, and needs assessment. Includes planning, implementing and evaluating a community health program with a designated community partner.

0101	James Butler	Seats (Total: 45)
	MW 11:00am - 12:15pm	SPH 0308

HLTH391H **Making a Difference: Applying Community Health**

Prerequisite: SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, EPIB301, EPIB315, BSCI170, BSCI201, and HLTH302. Students must have completed or be concurrently enrolled in HLTH364. Corequisite: HLTH490. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The exploration and application of community health concepts including theoretical models, advocacy, cultural competency, asset mapping, and needs assessment. Includes planning, implementing and evaluating a community health program with a designated community partner.

0101	James Butler	Seats (Total: 3)
	MW 11:00am - 12:15pm	SPH 0308

HLTH399 **Community Health Field Work**

(Perm req)

Students will gain practical experience under conditions conducive to educational and professional development. The internship is a supervised period of community/public health activities, carried out in a relevant professional organization, that emphasizes the application of theory and previous coursework.

Contact department for information to register for this course.

HLTH410 **Honors Seminar**

(Perm req)

Prerequisite: HLTH200; and must have completed 2 other courses in HLTH. Restriction: Minimum cumulative GPA of 3.5; and must have completed 45 credits before applying.

Undergraduate majors with a strong academic record are provided the opportunity to engage in challenging educational experiences related to the social and behavioral aspects of public health. Students will learn the skills and knowledge to develop, propose, defend, and complete an honors thesis or honors project.

0101	Kerry Green M 12:30pm - 2:50pm Class time/details on ELMs	Seats (Total: 12) SPH 0301 ONLINE

HLTH420 **Effective Strategies for Public Health Practice**

(Perm req)

Prerequisite: Minimum grade of C- in HLTH140 and HLTH230 . Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The purpose of this course is to present the interrelationships of curriculum planning, methodology and the selection and use of successful public health presentation strategies. Special problems associated with public health presentations are discussed, and students become familiar with a variety of resources as well as with planning for and implementing demonstration presentations.

0101	M Reynolds TuTh 9:30am - 10:45am	Seats (Total: 23) SPH 0303
0201	M Reynolds TuTh 11:00am - 12:15pm	Seats (Total: 23) SPH 0303

HLTH431 **Health Literacy in Action**

Recommended: HLTH 371; or equivalent. Repeatable to 0 credit. Credit only granted for: HLTH431 or HLTH498L. Formerly: HLTH498L.

This course introduces the concept of health literacy and develops the knowledge and skills to understand the field and engage productively about health literacy with healthcare providers, systems, and policy makers. The class explores diverse perspectives about health information and communication, and different pathways and strategies to help create the conditions for more informed and engaged individuals and communities.

0101	Catherine Maybury TuTh 2:00pm - 3:15pm *Restricted to students in the Behavioral and Community Health major.*	Seats (Total: 10) SPH 0302
0201	Catherine Maybury TuTh 2:00pm - 3:15pm *Restricted to College Park students in the Public Health Science major.*	Seats (Total: 25) SPH 0302

HLTH431H **Health Literacy in Action**

(Perm req)

Recommended: HLTH 371; or equivalent. Repeatable to 0 credit. Credit only granted for: HLTH431 or HLTH498L. Formerly: HLTH498L.

This course introduces the concept of health literacy and develops the knowledge and skills to understand the field and engage productively about health literacy with healthcare providers, systems, and policy makers. The class explores diverse perspectives about health information and communication, and different pathways and strategies to help create the conditions for more informed and engaged individuals and communities.

0101	Catherine Maybury TuTh 2:00pm - 3:15pm	Seats (Total: 5) SPH 0302

HLTH434 **Introduction to Public Health Informatics**

Restriction: Must be in one of the following programs (Community Health; Public Health Science) ; and must have earned a minimum of 60 credits. Credit only granted for: HLTH434 or HLTH498E. Formerly: HLTH498E.

Provides an overview of the field of public health informatics and the influence of technology on the public's health and well-being. Emphasizes the application of various technologies and computer/internet applications to support public health research and practice, including strategies to address new and emerging threats.

0101	Sandra Saperstein W 4:00pm - 6:45pm *Restriction: Must be a major in Behavioral and Community Health department.*	Seats (Total: 11) ATL 2428
0201	Sandra Saperstein W 4:00pm - 6:45pm *Restriction: Must be a Public Health Science major.*	Seats (Total: 29) ATL 2428

HLTH434H **Introduction to Public Health Informatics**

(Perm req)

Restriction: Must be in one of the following programs (Community Health; Public Health Science) ; and must have earned a minimum of 60 credits. Credit only granted for: HLTH434 or HLTH498E. Formerly: HLTH498E.

Provides an overview of the field of public health informatics and the influence of technology on the public's health and well-being. Emphasizes the application of various technologies and computer/internet applications to support public health research and practice, including strategies to address new and emerging threats.

0101	Sandra Saperstein W 4:00pm - 6:45pm	Seats (Total: 5) ATL 2428

HLTH460 **Multicultural Population Health**

Prerequisite: HLTH140, HLTH230, or HLTH366; or permission of SPHL-Behavioral & Community Health department. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department; or must be in the Anti-Black Racism Minor.

Health concerns of U.S. ethnic minority groups and factors placing them at elevated risk for disease and injury. Health education concepts and strategies to reduce disparities between their health status and the health status of the general population.

Cross-listed with HLTH460H. Credit granted for HLTH460 or HLTH460H.

0101	Craig Fryer TuTh 3:30pm - 4:45pm *Restriction: Must be a major in Behavioral and Community Health department. Please note the first Tuesday class meeting will be held in-person.*	Seats (Total: 15) SPH 0302
0201	Craig Fryer TuTh 3:30pm - 4:45pm *Restriction: Must be a Public Health Science major. Please note the first Tuesday class meeting will be held in-person.*	Seats (Total: 30) SPH 0302

HLTH460H **Multicultural Population Health**

(Perm req)

Prerequisite: HLTH140, HLTH230, or HLTH366; or permission of SPHL-Behavioral & Community Health department. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department; or must be in the Anti-Black Racism Minor.

Health concerns of U.S. ethnic minority groups and factors placing them at elevated risk for disease and injury. Health education concepts and strategies to reduce disparities between their health status and the health status of the general population.

Cross-listed with HLTH460. Credit granted for HLTH460 or HLTH460H.

0101	Craig Fryer TuTh 3:30pm - 4:45pm *Please note the first Tuesday class meeting will be held in-person.*	Seats (Total: 3) SPH 0302

HLTH489 **Field Laboratory Projects and Workshop**

(Perm req)

A course designed to meet the needs of persons in the field with respect to workshop and research projects in special areas of knowledge not covered by regularly structured courses.

Contact department for information to register for this course.

HLTH490 **Professional Preparation in Community Health**

(Perm req)

Prerequisite: Minimum grade of C- in EPIB301, EPIB315, SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, HLTH302, BSCI170, BSCI171, and BSCI201; and students must have completed or be concurrently enrolled in HLTH364. Corequisite: HLTH391. Restriction: Must be in a major within the Behavioral and Community Health department.

The development of skills necessary for joining the public health work force post-graduation, as well as assistance in obtaining an appropriate internship that will serve as a final semester, capstone experience. Students will be exposed to various relevant professional experiences, and will be afforded the opportunity to strengthen their own individual skills by selecting from a menu of skills-based learning modules that best suit their perceived needs.

0101	Carson Peters TuTh 9:30am - 10:45am	Seats (Total: 23) HBK 0123
0201	Carson Peters TuTh 11:00am - 12:15pm	Seats (Total: 23) HBK 0123

HLTH490H **Professional Preparation in Community Health**

(Perm req)

Prerequisite: Minimum grade of C- in EPIB301, EPIB315, SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, HLTH302, BSCI170, BSCI171, and BSCI201; and students must have completed or be concurrently enrolled in HLTH364. Corequisite: HLTH391. Restriction: Must be in a major within the Behavioral and Community Health department.

The development of skills necessary for joining the public health work force post-graduation, as well as assistance in obtaining an appropriate internship that will serve as a final semester, capstone experience. Students will be exposed to various relevant professional experiences, and will be afforded the opportunity to strengthen their own individual skills by selecting from a menu of skills-based learning modules that best suit their perceived needs.

0101	Carson Peters TuTh 9:30am - 10:45am	Seats (Total: 3) HBK 0123
0201	Carson Peters TuTh 11:00am - 12:15pm	Seats (Total: 3) HBK 0123

HLTH491 **Community Health Internship**

(Perm req)

Prerequisite: Minimum grade of C- in HLTH420 and HLTH490. Restriction: Must have completed all program requirements and be in the last semester of the Community Health degree program.

Integrating theory with practice in a community health setting.

0101	Tracy Kennedy	Seats (Total: 40)
	Contact instructor or department for details. Contact instructor or department for details.	

HLTH492 **BS/MPH Community Health Internship**

Prerequisite: Minimum grade of C- in HLTH490. Restriction: Must be a Community Health major who has been admitted to the combined BS/MPH degree program.

Integrating theory with practice in a community health setting.

0101	Tracy Kennedy	Seats (Total: 10)
	Contact instructor or department for details.	

HLTH609 **Public Health Journal Club**

Includes discussion of recent literature from leading peer-reviewed journals on a specific psychosocial construct and health outcome, with students presenting two articles during the semester. The purpose of this course is to read and consider health constructs and outcomes from a multidisciplinary perspective.

0101	Dina Borzekowski	Seats (Total: 10)
	Tu 12:00pm - 12:50pm	SPH 1234A

HLTH652 **Quantitative Research Methods I in Public health**

(Perm req)

Restriction: Must be in MPH: Community Health Education (Master's) program; or must be in Ph.D.: Public and Community Health (Doctoral) program. Credit only granted for: HLTH652 or HLTH688R. Formerly: HLTH688R.

Intermediate statistics and procedures in public health-related research for doctoral students. Focuses on applied statistics rather than theoretical, with emphasis on 1) how to apply statistical models, 2) how to perform the analysis with avialable software, and 3) how to interpret findings.

0101	Min Wang	Seats (Total: 15)
	W 4:00pm - 6:45pm	SPH 0301

HLTH672 **Public Health Informatics**

(Perm req)

Restriction: Instructor permission is required for students not enrolled in a degree seeking program in the School of Public Health. Cross-listed with: EPIB672. Credit only granted for: HLTH670 or HLTH672 or EPIB672. Formerly: HLTH670.

A basic overview of Informatics and its application in a public health setting. The major goal is for students to understand the basic tools and building blocks needed to utilize this technology in order to improve their professional productivity

0101	Sandra Saperstein Tu 7:00pm - 9:45pm	Seats (Total: 25) SPH 1301
PLB1	Michelle Jasczynski Class time/details on ELMs	Seats (Total: 25) ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

HLTH674 **Health Literacy**

Recommended: Health communication, communication, journalism, literacy, or cognitive or information sciences classes. Credit only granted for: HLTH688L or HLTH674. Formerly: HLTH688L.

Introduction to health literacy research, practice, and skills. The course will develop students' understanding of how health literacy is both a barrier and an asset for health. We will also examine how health literacy affects a wide range of outcomes. Students will learn the basics of health literacy concepts, models, and research methods, and discuss health literacy research and evaluation in clinical, public health, and community settings. Students will study key health topics, populations, and contexts for health literacy research and practice. The course will describe professional skills necessary for effective public health communication practice and provide opportunities to practice the skills. The implications of research for public health practice, policy, and consumer/patient interventions and behavior will be integrated so that public health practitioners and researchers are prepared to address health literacy in their future work.

0101	Cynthia Baur W 4:00pm - 6:45pm	Seats (Total: 25) SPH 2387F

HLTH688 **Special Problems in Health Education**

(Perm req)

Contact department for information to register for this course.

HLTH710 **Methods and Techniques of Research**

(Perm req)

0101	Elaine Doherty Tu 4:00pm - 6:45pm	Seats (Total: 25) SPH 0303

PLB1	Azieb Kidanu	Seats (Total: 16)
	Class time/details on ELMs	ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

HLTH712 **Applied Research Methods in Behavioral and Community Health**

(Perm req)

Prerequisite: HLTH710.

Designed to build on the research skills obtained in HLTH710 and other fundamental research methods and statistics courses. Methods and problems that are commonly encountered in health education research will be discussed including examination of actual research studies. Complex behavioral research issues will be addressed with existing research data sets. With these data sets, students will develop an analytic plan and conduct data analysis.

0101	Bradley Boekeloo	Seats (Total: 10)
	M 4:00pm - 6:45pm	SPH 0301

HLTH778 **Practical Experience in Public Health**

Practical Experience seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the practical experience will depend upon the student's background and career goals.

0101	Evelyn King-Marshall	Seats (Total: 10)
	Contact instructor or department for details.	
PLB1	Evelyn King-Marshall	Seats (Total: 10)
	Class time/details on ELMs	ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

HLTH780 **Community Health**

Restriction: Must be in the Behavioral and Community Health doctoral program (BCHL) or the Master of Public Health Behavioral and Community Health concentration in-person or online program (MBCH or MBCO); and permission of Behavioral and Community Health department. Credit only granted for: HLTH740 or HLTH780.

Overview of public health organizations, programs, and policies, including their structure and function, and their ability to change with changing community health needs.

0101	Zahra Saboori Th 4:00pm - 6:45pm	Seats (Total: 25) SPH 0305
PLB1	Zahra Saboori Class time/details on ELMs	Seats (Total: 15) ONLINE

Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.

HLTH784 **Guided Capstone Preparation Seminar**

Prerequisite: Must have attended a capstone project orientation session; and must have completed or be concurrently enrolled in HLTH625, HLTH665, and HLTH710.

The purpose of this seminar is to guide students through the major steps and deadlines associated with developing their capstone project, which is the MPH degree culminating experience. The capstone project requires that students apply the knowledge and skills acquired during their MPH program to meet the needs of a stakeholder group or person. Some examples of needs (deliverables) include: an infographic, a website, a curriculum, a lesson plan, an app, an evaluation plan, a policy brief, etc. Some examples of stakeholders: include legislators, non-profit organizations, a faculty researcher, a government (county, state or federal) agency, etc. The project is very applied in nature and the result is a deliverable that can be used immediately by the stakeholder.

0101	Hector Alcala Contact instructor or department for details.	Seats (Total: 10)
PLB1	Hector Alcala Class time/details on ELMs	Seats (Total: 17) ONLINE

Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.

HLTH786 **Capstone Project in Public Health**

(Perm req)

Prerequisite: Must have completed all required coursework; and permission of SPHL-Behavioral & Community Health department. Restriction: Must be in a major within SPHL-Behavioral & Community Health department.

Capstone experience providing opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

HLTH898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

HLTH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

HNUH University Honors Fall 2023

HNUH100 **Gateway Seminar**

First-semester orientation and exploration seminar required of all UH students.

Restricted to first-semester UH students.

0101	Jordan Johnson, Christine Jones Tu 9:30am - 10:45am	Seats (Total: 20) YDH 0104A
0102	Jordan Johnson, Christine Jones Tu 11:00am - 12:15pm	Seats (Total: 20) YDH 0104A
0103	Christine Jones, Jordan Johnson Th 9:30am - 10:45am	Seats (Total: 20) YDH 0104A
0104	Christine Jones, Jordan Johnson Th 11:00am - 12:15pm	Seats (Total: 20) YDH 0104A
0105	Christine Jones, Jordan Johnson F 9:00am - 10:15am	Seats (Total: 20) YDH 0104A
0106	Jordan Johnson, Christine Jones F 12:00pm - 1:15pm	Seats (Total: 20) YDH 0104A
0201	Christine Jones, Rebecca Jones Tu 9:30am - 10:45am	Seats (Total: 20) YDH 0104F
0202	Rebecca Jones, Christine Jones Tu 11:00am - 12:15pm	Seats (Total: 20) YDH 0104F
0203	Christine Jones, Rebecca Jones Th 9:30am - 10:45am	Seats (Total: 20) YDH 0104F
0204	Rebecca Jones, Christine Jones Th 11:00am - 12:15pm	Seats (Total: 20) YDH 0104F

0205	Christine Jones, Rebecca Jones F 9:00am - 10:15am	Seats (Total: 20) YDH 0104F
0206	Rebecca Jones, Christine Jones F 12:00pm - 1:15pm	Seats (Total: 20) YDH 0104F
0301	Christine Jones, Brynne McBryde Tu 3:30pm - 4:50pm	Seats (Total: 20) YDH 0104A
0302	Brynne McBryde, Christine Jones Tu 5:00pm - 6:15pm	Seats (Total: 20) YDH 0104A
0303	Christine Jones, Brynne McBryde Th 3:30pm - 4:45pm	Seats (Total: 20) YDH 0104A
0304	Brynne McBryde, Christine Jones Th 5:00pm - 6:15pm	Seats (Total: 20) YDH 0104A
0305	Christine Jones, Brynne McBryde F 10:30am - 11:45am	Seats (Total: 20) YDH 0104A
0306	Brynne McBryde, Christine Jones F 1:30pm - 2:45pm	Seats (Total: 20) YDH 0104A
0401	Christine Jones, Daniel Zipp Tu 3:30pm - 4:45pm	Seats (Total: 20) YDH 0104F
0402	Daniel Zipp, Christine Jones Tu 5:00pm - 6:15pm	Seats (Total: 20) YDH 0104F
0403	Christine Jones, Daniel Zipp Th 3:30pm - 4:45pm	Seats (Total: 20) YDH 0104F
0404	Daniel Zipp, Christine Jones Th 5:00pm - 6:15pm	Seats (Total: 20) YDH 0104F
0405	Christine Jones, Daniel Zipp F 10:30am - 11:45am	Seats (Total: 20) YDH 0104F
0406	Daniel Zipp, Christine Jones F 1:30pm - 2:45pm	Seats (Total: 20) YDH 0104F

0501	Christine Jones, Natalie Kress Class time/details on ELMs *Restricted to new UH internal transfer students. For permission to enro l in this class, please email Dario Middleton at Dario@umd.edu.*	Seats (Total: 10) ONLINE	
0601	Christine Jones, Rebecca Jones W 10:30am - 11:45am	Seats (Total: 15) SQH 1111	

HNUH218B **Frederick Douglass's America**

Credit only granted for: HNUH218B or HIST227. Formerly: HNUH218B.

What does it mean to be free in the United States? The concept of freedom was embedded in the nation's political culture in the Declaration of Independence, and it has remained a cherished and contested ideal. We can interrogate this concept through the life and times of Frederick Douglass (1818-1895), who dreamed eloquently of freedom, thought carefully about its limits, and worked ardently to build a firmer freedom for a broader population. With Douglass as our guide, we will examine the survival of slavery in a nation built on freedom, images of the expanding United States as a land of opportunity, and the complex meanings and tremendous costs of freedom struggles during the nineteenth century. This history will push you to think critically about the contested concepts that shape our lives, and to consider the values and the perils of a society that positions freedom as its highest ideal.

Restricted to University Honors students matriculating in Fall 2020 and later. HNUH218B is the required course in the Freedom at Stake thematic cluster. Freedom at Stake courses will be offered through Spring 2024.

0101	Christopher Bonner MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 20) SQH 1119 JMZ 0208	 Discussion
0102	Christopher Bonner MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) SQH 1119 TYD 1118	 Discussion
0103	Christopher Bonner MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) SQH 1119 TYD 1118	 Discussion

HNUH218J **The Free Internet**

Free speech, free porn, free shipping... What does it mean for something to be 'free' online and how does our participation in the internet liberate or constrain our identities, bodies, and relation with others? In this class we'll talk about the economics, politics, and culture of the internet to assess how values and value are made and circulated within its technologies. We'll focus on the many ways the term 'free' operates in this context, notably, around the ability to create, distribute, and access information. Centered on the US with a comparative eye on the global internet ecosystem, this seminar asks: Where do the rights and responsibilities for a "free internet" come from, and to whom do they apply? What identities and bodies are at risk or rewarded in these systems? What are the choices individuals, platforms, and governments must make to determine the future of the internet and the freedom of the people who build and use it?

This course is part of the Freedom at Stake thematic cluster. Freedom at Stake courses will be offered through Spring 2024.

0101	Alexandra Harlig TuTh 12:30pm - 1:45pm	Seats (Total: 20) YDH 0104F
0201	Alexandra Harlig TuTh 2:00pm - 3:15pm	Seats (Total: 20) YDH 0104A

HNUH218V **Black Bodies and Green Spaces: From 1619 to Today**

From the antebellum plantation slave, who used uncultivated land as a place of deliverance, healing and route to freedom, to the Central Park bird watcher, whose green space presence was perceived as a threat to White physical safety, black bodies have a vexed relationship to green space. This course critically examines how systemic racism has shaped the experience, connection, and relationship to nature among Black Americans. Students will conduct in-depth analysis, critical thinking, and discussion on topics ranging from slavery and nature; The Great Migration; and Jim Crow, segregation, and parks; to green space inequity and "Moving While Black" (Treyvon to Ahmaud). While some environments (built, natural, virtual) within the United States have represented the essence of anti-Black racism and indignity, this course will further explore how many Black Americans still regarded nature as a space of freedom, humanity, and spirituality.

0101	Jennifer Roberts Th 2:00pm - 4:30pm	Seats (Total: 20) ANS 0402

HNUH219T **Transform Maryland: Consulting Practicum**

In this experiential learning opportunity, a team of students undertakes a real-world practicum to develop consulting skills and improve an operational process at the University of Maryland. A new project is selected each semester and the course culminates in a presentation to key members of the UMD leadership team. Through concepts drawn from multiple disciplines, students learn and apply an analytical, systems approach to problem solving. Working with oversight from experts in the industry, students partner with university officials to understand and map a business process that affects students, identify opportunities for process innovation, and apply user-centered design to develop a persuasive narrative to recommend solutions and leverage the potential for technology to streamline the process. This practicum prepares students to consult for real-world change, while practicing competencies they will use in their professional internship experience the following semester (HNUH219P).

HNUH219T must be followed by HUNH219P to complete the Transform Maryland Theory/Practice track. This track will be offered at least through the 2024-25

0101	Megan MacKenzie, Joseph Drasin, Jeffrey Hollingsworth Tu 4:00pm - 6:30pm	Seats (Total: 10) HJP 2217

HNUH228B **Redesigning Life: Prospects and Consequences**

What is at stake for our world as humans seek to redesign biological organisms? Biotechnology advances are enabling us to read, edit and write genomes, including our own. This revolution has been fueled by the quest to understand and cure disease. Yet, these innovations have far-reaching consequences beyond medicine and will reshape our world in ways we can only imagine - or fear. The course will challenge students to confront the risks and rewards for them, their family, their community, and their future, as biotechnology moves out of specialized laboratories and into homes. A demystifying, low-tech approach will introduce them to contemporary genome redesign, clarifying the current limitations and future goals of the field. Students will debate whether redesigning plants and animals will enhance or inhibit momentum in human genome engineering, and formulate their own arguments about who should be able to use these tools and where, who decides, and how much society is willing to risk.

Restricted to University Honors students matriculating in Fall 2020 and later. HNUH228B is the required course in the Redesigning Life thematic cluster. Redesigning Life courses will be offered through Spring 2024.

0101	Edward Eisenstein TuTh 12:30pm - 1:45pm	Seats (Total: 60) EGR 1108

HNUH228U **A Life Worth Living: The Legacy of Eugenics in Genetics**

Should parents be able to choose their child's eye color? Or alter their child's genome to eliminate a hereditary disability? While these might seem like different concerns, both are eugenic questions. In this class students will learn about the legacy of eugenics and its role in the development of genetics by analyzing science fiction works through the lens of disability studies. We'll explore the past to identify who has historically been considered "fit" and look to the future to consider what kinds of embodiments, and life experiences, society seems willing to let disappear.

Restricted to University Honors students matriculating in Fall 2020 and HNUH228U is part of the Redesigning Life cluster. Redesigning Life courses will be offered throgh Spring 2024.

0101	Leigha McReynolds TuTh 12:30pm - 1:45pm	Seats (Total: 20) YDH 0104A
0201	Leigha McReynolds TuTh 2:00pm - 3:15pm	Seats (Total: 20) YDH 0104F

HNUH228V **At What Cost? An Examination of the Societal and Ethical Impact of Modern Biological Research**

The results of modern biological research are pervasive - from cutting edge medical treatments, to debates about mandatory vaccination, to genetic engineering breakthroughs. This course will examine the social, ethical, and biological costs of research. The focus will be on the larger issues that surround the biology - questions of ethical research, the perception of science versus reality, the intersection of science and society, and even we may need to reconsider the meanings of "self" and "human". Students will reflect on the lessons learned to propose how research can proceed in a way that balances the demands of discovery with social justice and the ethical use of animals and the environment.

Restricted to UH students matriculating in Fall 2020 or later. HNUH228V is part of the Redesigning Life thematic cluster and pairs with HNUH248B to complete the cluster. Redesigning Life courses will be offered through Spring 2024.

0101	Kenneth Frauwirth TuTh 11:00am - 12:15pm	Seats (Total: 20) ATL 2330

HNUH229T **Climate in Crisis: Socio-Environmental Sustainability**

What does it mean to achieve sustainability and how does use of a socio-environmental lens help move the world in that direction? In this, the theory component of the Climate in Crisis track, students will develop an understanding of socio-environmental systems, what they have in common with other complex adaptive systems and the approaches used to study them. With a focus on why a socio-environmental systems approach can help illuminate the environmental, socio-cultural, economic, and intersectional dimensions of sustainability, we will explore what different disciplines bring to this complex topic and use qualitative and quantitative approaches to grapple with problems of sustainability. How do we work with stakeholders to identify the vulnerable, the equitable paths forward, and the trade-offs? Who are the winners and losers of policy decisions? In HNUH229P, students will complement the work of this course with hands-on engagement at the level of Federal policy and legislation.

Restricted to UH students matriculating in Fall 2020 or later. HNUH229T pairs with HNUH229P to complete the "Climate in Crisis" Theory/Practice track. This pair of courses can be taken in any order. This track will be offered at least through the 2023-24 academic year.

0101	Margaret Palmer Tu 4:00pm - 6:30pm	Seats (Total: 20) PLS 1168

HNUH238B **Systemic Racism in Public Opinion and Policy Attitudes**

If we believe that racism is bad, why do we still support racist policies? No matter how hard we work to end it, the challenge of racism seems here to stay. Though attitudes toward racial segregation in schools have changed, schools are more racially isolated than ever. There is a disconnect in American public life between support for the idea of equality and resistance to policies aimed at addressing racism, and a deep divide over how to eliminate inequality. This course focuses on public opinion and how these attitudes inform public policy. Can we address systemic inequality through public engagement and by changing the national narrative with the support of evidence? Does change come from shifting views or shifting policies? Students will explore these issues through a case study on racial equity in the Honors College. By developing skills in evidence-based op-ed writing and survey-based experiments, students will add their voices to these pressing public debates of our time.

Restricted to University Honors students matriculating in Fall 2020 and later. HNUH238B is the required course in the Systemic Racism cluster. Systemic Racism classes will be offered through Spring 2024.

0101	Janelle Wong TuTh 2:00pm - 3:15pm	Seats (Total: 60) CCC 1100

HNUH238U **Unequal Opportunity? Race and the Future of American Education**

America's schools are dynamic microcosms of society at large. They simultaneously reflect, reproduce, and shape what happens outside of the classroom, including the many ways that racism affects us all. The educational mechanisms that operate for the benefit of some and to the detriment of others are often hard to see, often because they are hidden in plain sight. For example, national tests are standardized. When racialized differences in test scores appear, they are called "achievement gaps" and the disparity is attributed to essential differences or cultural deficiency rather than inequitable access and opportunity. In this course students will learn methods to critically examine such commonplace notions as the achievement gap and to document their effects on society. They will also develop strategies for self-reflection that enable them to confront inequity in their own educational experience and work to create change.

Restricted to UH students matriculating in Fall 2020 or later. HNUH238U is part of the Systemic Racism thematic cluster and pairs with HNUH238B to complete the cluster. Systemic Racism courses will be offered through Spring 2024.

0101	Robert Graham MW 2:30pm - 3:45pm	Seats (Total: 20) YDH 0104A
0201	Robert Graham MW 4:00pm - 5:15pm	Seats (Total: 20) YDH 0104A

HNUH238V **Still Separate and Unequal? The Enduring Role of Segregation in American Life**

Racial segregation remains an enduring feature of American life today though many believe segregation is a relic of the past. Using an interdisciplinary approach that incorporates history, sociology, political science, and public policy, this course highlights the complex ways in which legacies of segregation continue to shape life in the US. We will identify how federal, state, and local governments endorsed systemic racism through policies that defined the racial geography and resources of racial groups in the US. Students will engage with policy experts to consider the promise and limits of policies that promote integration within communities and the connection between race, spatial location, and current political divisions.

Restricted to UH students matriculating in Fall 2020 or later. HNUH238V is part of the Systemic Racism thematic cluster and must be paired with HNUH238B to complete the cluster. Systemic Racism courses will be offered through Spring 2024.

0101	Alana Hackshaw	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ATL 2316

HNUH239P **Geopolitics of Finance: A Simulation of the Roller Coasters of Capitalism**

Credit only granted for: HONR299F or HNUH239P. Formerly: HONR299F.

Explores the intersection of money, markets, politics, and power; and the periodic financial crises that leave a lasting, sometimes devastating impact on the global landscape. Students will examine the detritus of 200 years of crises in the United States, from 19th-century booms and busts, to early 20th-century crashes. They will take the roller coaster ride of the 2008 financial crisis, reliving events that left the world reshaped. Students will be primed to examine the ripple effects of financial crises and the role they have played in changing the global socio-economic landscape over the last two centuries. This course is self-contained but paired with HNUH239T in the Geopolitics of Finance track, which explores how globalization has brought about fundamental changes to our daily lives by making the world more interdependent.

0101	Behzad Gohari	Seats (Total: 20)
	W 6:00pm - 8:30pm	ESJ 2212

HNUH239T **Geopolitics of Finance: Innovation & Cross-Cultural Globalization**

Introduces students to the creative possibilities of the global economy: cross-cultural innovation, collaborative design-driven solutions, and enduring innovation with global purchase. Covers innovations in global business that are transforming the future through an embrace of diverse cultural perspectives. Working with interactive idealized design, out-of-the-box-thinking, and strategic exploration tools, students will explore and experience relevant design to new and cross-cultural value creation. Through rapid prototyping, immersive reflections, and innovative design activities, students will experience how to translate insight into action, and action into tangible results. The evolutionary application of frameworks in this course culminates in a capstone project. This course is self-contained but paired with HNUH239P in the Geopolitics of Finance track, which explores how globalization has brought about fundamental changes to our daily lives by making the world more interdependent.

HNUH239T pairs with HNUH239P to complete the "Geopolitics of Finance" Theory/Practice Track. This pair of courses can be taken in any order. This track will be offered at least through the 2023-24 academic year.

0101	Gerald Suarez	Seats (Total: 20)
	MW 2:00pm - 3:15pm	ESJ 2101

HNUH248B **Setting the Table: The Challenges and Opportunities for Sustainable Agriculture**

What will the farm of the future look like? Our current food system is plagued with paradoxes. An estimated 41.2 million Americans are classified as food insecure, but we produce 4,000 calories per person per day. Between 2008 and 2012, 1.6 million acres of long-term grasslands were converted to crop production, yet more than 350,000 acres of farmland were lost to development annually. This course will investigate what determines the food we eat and how we can make changes today that will improve both food access and the environment for future generations. Students will learn agribusiness, as well as alternative food movements and regenerative agriculture. They will meet experts from the USDA and Maryland producers. By growing their own vegetables, tracking food consumption, and exploring family history linked to farming, students will leave the course as conscious consumers empowered to navigate food system reform.

Restricted to University Honors students matriculating in Fall 2020 and later. HNUH248B is the required course in the Global Crises, Sustainable Futures cluster. Global Crises, Sustainable Futures classes will be offered through Spring 2024.

0101	Stephanie Yarwood	Seats (Total: 55)
	TuTh 3:30pm - 4:45pm	SQH 1117

HNUH248U **Building Community: How to Make Friends**

Credit only granted for: HNUH248U or HNUH269P. Formerly: HNUH248U.

In 2017, U.S. Surgeon General Vivek Murthy deemed loneliness an "epidemic." While the rise of social media is meant to foster connection, over 23% of adults report being lonely and social networks have been shrinking for decades. Despite increasing rates of loneliness, it is still possible to overcome these trends and find connection. We tend to assume that we should know how to connect with others intuitively, but, as rising rates of loneliness indicate, this is not the case: connection is something we must learn and practice. In this applied course, students will learn the science of connection and engage in practical activities designed to help them make and keep friends. They will leave the course better able to foster meaningful connections. This course is self-contained but paired with HNUH269T in the Building Community track, where you will learn the social value of showing up, for the world and for yourself.

Restricted to UH students matriculating in Fall 2020 or later. HNUH248U is part of the Global Crises, Sustainable Futures thematic cluster and pairs with HNUH248B to complete the cluster. Global Crises, Sustainable Futures courses will be offered through Spring 2024.

0101	Marisa Franco	Seats (Total: 20)
	MW 1:00pm - 2:15pm	YDH 0104A

0201	Marisa Franco	Seats (Total: 20)
	MW 4:00pm - 5:15pm	YDH 0104F

HNUH249P **National Security: US Foreign Policy**

Credit only granted for: HNUH249P or HONR269T. Formerly: HONR269T.

Following the terrorist attacks of September 11, 2001, the U.S. launched a major effort to dismantle the Taliban and create a sustainable democracy in Afghanistan. In 2021, the Taliban took control of the country. Was the U.S. effort doomed to fail? To answer this question, UH students will partner with peers at the American University of Afghanistan through a virtual global classroom to examine the lessons learned from the U.S. and international presence in Afghanistan over the past 20 years. Through reading assignments and virtual meetings with former senior U.S. and Afghan officials, students will examine the reasons behind the downfall of the country and analyze whether the outcome could have been changed. Students are not expected to have any prior knowledge about the conflict in Afghanistan. This course is self-contained but paired with HNUH249T in the National Security track, which explores debates around efforts to protect the nation from terrorism while preserving our values.

HNUH249P pairs with HNUH249T to complete the National Security Theory/Practice track. This pair of courses can be taken in any order. This track will be offered at least through the 2024-25 academic year.

0101	Temim Nusraty	Seats (Total: 20)
	Tu 6:30pm - 9:00pm	ESJ B0320

HNUH258B **The Ecology of Childhood Poverty**

How does poverty shape the relationship between humans and their environment? It may seem obvious that being poor in childhood has enduring effects on development. What is less obvious is how experiencing poverty in childhood shapes relationships between children and their surroundings, including family interactions, peer relationships, adult dynamics, and the health of the community. Less clear still is the extent to which positive interactions with caretakers and social supports can protect children from potential harm as they grow up. This course focuses on the complexity of poverty as a social force and community concern. Students will investigate the nature of poverty through an interdisciplinary lens that includes social theory, developmental psychology, and empirical studies. After analyzing various approaches to the study of child poverty, students will be in a position to use research on parenting and poverty to evaluate public policy and social programs in their own backyard.

HNUH258B is the required I-Series course in the Metamorphosis thematic cluster. Metamorphosis courses will be offered through Spring 2025.

0101	Natasha Cabrera	Seats (Total: 60)
	MW 2:00pm - 3:15pm	TYD 1102
	2308: Moved to JMP 3201 due to complaint concerning TYD 1102 even though they do no meet the seat utilization-SLB.	

HNUH258U **The Basis of Behavior: Evolution and the Origin of Actions**

Why do some monkeys spend time grooming each other in large groups, while others lose their minds with rage if another monkey comes too close? Complex organisms exhibit behaviors that both fascinate and confound, and the way an animal behaves dictates how it interacts with its environment, with profound consequences. Individual behaviors can have dramatic effects on individual fitness, an individual's groupmates, and even the evolution of species. This leads to a fundamental question in behavioral evolution: why do animals do the things they do? The answer lies in the interaction between individual experiences and eons of natural selection. In this seminar, students investigate what organisms were, what they have become, and why. With a focus on the transitions in behavior that caused single cells to evolve over time into complex societies, students will apply evolutionary principles to individual development and explore how and why individuals choose certain behaviors over others.

HNUH258U is part of the Metamorphosis thematic cluster and pairs with HNUH258B to complete the cluster. Metamorphosis courses will be offered through Spring 2025.

0101	Riva Riley MW 9:00am - 10:15am	Seats (Total: 20) YDH 0104F
0201	Riva Riley MW 10:30am - 11:45am	Seats (Total: 20) YDH 0104F

HNUH259P **Drawn to D.C.: Sketching the City**

Restriction: Must have matriculated in University Honors starting in Fall 2020 or later.

Spaces, materials, objects, structures--the building-blocks of cities--index the values of the societies that produce them. By their very nature cities are memory devices. Yet, in an increasingly transient and virtual world, with access to a seemingly infinite amount of memory, what is the status of the spaces we inhabit? This course will explore the relationship among memory, the body and the built environment. Beginning with the role cities play in our individual lives and the construction of personal memories, we will take account of what we forget by remembering and what experiences are missing. Through lectures, seminars and discussions, students will produce short experimental books and pamphlets remapping Washington D.C. and the many invisible - personal - cities it contains. No previous art or design experience required. This course is self-contained but paired with HNUH259T in the Drawn to D.C. track, which explores the created spaces we inhabit, and how they inhabit us.

HUNH259P pairs with HUNH259P to complete the Drawn to D.C. Theory/Practice track. This pair of courses can be taken in any order. This track will be offered at least through the 2024-25 academic year.

0101	Michael Abrams W 11:00am - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 20) ARC 1103 ARC 1105

HNUH268B **Global Heritage**

What traction does the past have in society today? This course explores globally how the past gains traction in society today and becomes remade in the present. That inquiry will be guided by the idea of heritage, as it mobilizes the past within a broad spectrum of social, political, economic, and environmental issues. We will examine western relationships to the past as intimately tied to property and the drive to plunder, collect, and catalogue. Increasingly, conceptions of heritage include landscapes, as well as intangibles such as music, dance, and folklore. This broad definition honors the diversity of present-day relations to the past, even as it strains heritage management models that are organized around definitions and regulations, and bear the weight of historical injustice. Close examination of heritage at work within global crisis and struggle prompts questions on who owns the past, and who owns up to it. What do we owe the past, and will we be good ancestors to the future?

HNUH268B is the required I-Series course in the Heritage thematic cluster. Heritage courses will be offered through Spring 2025.

0101	Kathryn Lafrenz Samuels MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 20) TWS 0310 WDS 1114	 Discussion
0102	Kathryn Lafrenz Samuels MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) TWS 0310 WDS 1114	 Discussion
0103	Kathryn Lafrenz Samuels MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 20) TWS 0310 WDS 1102	 Discussion

HNUH268U **Power, Politics, and the Past: Local Communities and Cultural Heritage**

The politics of the past surround us. An online memorial to the struggle against the Dakota Pipeline, the call to commemorate Indigeneity instead of Columbus, monuments to the Confederacy torn down... How do diverse communities claim--or reject--particular places, practices, and ideas as their shared heritage, and why? In this course, we will explore these questions with reference to Indigenous communities in global context, with a particular focus on Mexico. Students will engage with theoretical approaches and contemporary case studies to analyze the politics and ethics surrounding the use of the past in diverse Indigenous presents. Visits to DC's museums and archives will help students practice theorizing real-world materials. Students will leave the course with the analytical tools necessary to understand cultural heritage and advocate for Indigenous perspectives on the past. A typical day in this course will involve reading an article-length work and participating in student-led discussion.

HNUH268U is part of the Heritage thematic cluster and pairs with HNUH268B to complete the cluster. Heritage courses will be offered through Spring 2025.

0101	Samuel Holley-Kline MW 9:00am - 10:15am	Seats (Total: 20) YDH 0104A	

0102	Samuel Holley-Kline	Seats (Total: 20)
	MW 10:30am - 11:45am	YDH 0104A

HNUH268W **Where the Waters Blend: Contemporary Indigenous Perspectives on History, Traditions, and Modern Issues**

In this unique cultural and personal learning experience, students will explore the history, traditions, and contemporary issues faced by Maryland's Indigenous people. The experiential work of the course asks students to consider how the past matters, particularly when it is embodied in the land they live on, and their present obligations to it. On-campus and place-based learning, focused on the precolonial and colonial histories of Maryland's Indigenous people, and their contemporary issues create opportunities for students to reflect upon and interrogate their understanding of Maryland's past, present, and future. Students will emerge from this course with a greater understanding of the Maryland's Indigenous people and an increased capacity to challenge colonial and postcolonial paradigms that marginalize the Indigenous people in our region, nation, and across the globe.

Restricted to UH students matriculating in Fall 2020 or later. HNUH268W is part of the Heritage thematic cluster and pairs with HNUH268B to complete the cluster. Heritage courses will be offered through Spring 2025.

0101	Angela Stoltz	Seats (Total: 20)
	Tu 6:30pm - 9:00pm	YDH 0104A

HNUH278A **The Research Behind Headlines on Words, Thought, and Behavior**

(Perm req)

Cross-listed with: HESP214. Credit only granted for: HNUH278A or HESP214.

How does the human mind use language? Type "Language Science News" into your Google search bar. Among the more than 3 billion hits, headlines like "What is love? It depends what language you speak" and "Science's English dominance hinders diversity" invite you to think about the impact of words on thought and behavior. These are stories about how humans acquire and use language, but they ultimately address big questions about how we experience knowledge itself. In a world of unprecedented access to science journalism, did you ever read a headline about human behavior and wonder: How do we know? This class takes up the elegant ways cognitive scientists design experiments to answer crucial questions about language and thought, brain and behavior, that have no intuitive answers. Students will dive deep into the media coverage of their favorite claims about what we know, debate the psychological science behind these claims, and develop transferable critical-thinking skills in the process.

Restricted to UH students matriculating in Fall 2020 and later. This course is the required I-Series course in the "In A Word" thematic cluster. Other courses in the "In A Word" cluster will be offered through Spring 2023; and HNUH278A will be offered through Fall 2023.

0101	Jared Novick	Seats (Total: 60)
	MW 11:00am - 12:15pm	ESJ 2212

HNUH278B **Democratic Habits**

How do ordinary citizens power democracy? At the age of 18, every American citizen is endowed with the right to vote, but what if democracy demands more than voting? With democratic processes seemingly in peril all around us, what can and should ordinary citizens do to safeguard democracy? Looking beyond the basic right to vote, this class will instead explore the complex ecosystem of citizenship practices necessary for collective self-governance. Turning to both philosophy and history, the course material addresses the power and peril of such civic habits as mutual aid, economic participation, tolerance, attention, organizing, protest, and more. We consider what resources these habits require, what virtues they inspire, and what happens when they conflict with each other. Students in this course will acquire the tools to develop and act on their own answer to the pressing question of what it will take to save democracy.

Restricted to UH students matriculating in Fall 2020 or later. HNUH278B-0101 is the required I-Series course in the Civil Bonds thematic cluster. Civil Bonds courses will be offered through Spring 2025.

0101	Kristjana Maddux TuTh 9:30am - 10:45am	Seats (Total: 60) ESJ 2309

HNUH278U **Indigenous Knowledge, Supernatural Remedy, and Collective Action: Lessons from Agrarian Societies**

How were human communities sustained before the rise of capitalism, individualism, and secularism? Where can we look to imagine a world in which modern science, polity, and ethics are not the defining system of civil social? Through an exploration of stories from late medieval Europe, China, Southeast Asia, and other regional communities, with a particular focus on the East, this course aims at de-orientalizing the narratives of the Western world by recovering the collective practices of the global past and present. Interrogating the idea that human history has been a linear process of industrialization and secularization, this course encourages students to reflect on the limits and problems of modernization, and learn from cultures whose practices were displaced or silenced by colonial knowledge production. Students will be empowered to consider, and even envision, alternative versions of modernity and the future of our world.

HNUH278U is part of the Civil Bonds thematic cluster and pairs with HNUH278B to complete the cluster. Civil Bonds courses will be offered through Spring 2025.

0101	Yupeng Jiao MW 1:00pm - 2:15pm	Seats (Total: 20) YDH 0104F
0201	Yupeng Jiao MW 2:30pm - 3:45pm	Seats (Total: 20) YDH 0104F

HNUH278V **Climate Change, Infectious Disease, and Civil Society**

Viruses that are lethal to human life have been on earth for centuries. Why are they surging now? And how can we respond to the recent breakneck spread of Coronavirus? This class begins its journey with Homo sapiens, our ancestor that dispersed out of Africa and carried infectious diseases across the planet. Human expansion into new ecosystems also provided opportunities for us to acquire new pathogens. While all of human history is marked by diseases caused by human migration, the Industrial Revolution greatly accelerated human mobility while planting the seeds of the human impact on climate change. Today, the increasingly rapid movement of people and goods, combined with a warming planet and the large-scale disruption of major ecosystems has witnessed an unprecedented spread of infectious diseases. Students will explore how these trends impact our lives and collectively challenge themselves to do what must be done to save our planet and ourselves.

HNUH278V is part of the Civil Bonds thematic cluster and pairs with HNUH278B to complete the cluster. Civil Bonds courses will be offered through Spring 2025.

0101	Jonathan Dinman	Seats (Total: 20)
	TuTh 9:30am - 10:45am	PLS 1111

HNUH288B **Race, Reproduction and Rights**

Can humanity thrive without ensuring reproductive freedom? The 2022 US Supreme Court decision that the right to an abortion is unconstitutional has generated impassioned debate about women's rights and access to reproductive health care in the US and globally. This debate opens space to think beyond "pro-choice or pro-life" polarization and create conditions that promote equity, respect for rights, and a healthy society. These conditions would need to address injustices such as the racism, gender inequalities, marginalization, and colonization that produce disparities in reproductive health care and jeopardize the well-being of individuals, families, communities, and countries. Who controls the bodies of marginalized women and men? What is the meaning of reproductive rights for people who have little power? This course challenges students to bring together multiple disciplines, become critical data consumers, and develop innovative ways to use this knowledge to influence policy.

HNUH288B is the required I-Series course in the Health Matters thematic cluster. Health Matters courses will be offered through Spring 2025.

0101	Sangeetha Madhavan	Seats (Total: 60)
	TuTh 9:30am - 10:45am	TWS 1100

HNUH288U **The Body Knows: Creating Healthy Intimacy on College Campuses**

How do we figure out what we physically desire? How do we know where our boundaries are and how do we communicate that to others? What would it look like to create a campus community where young people are confident about their sexuality and their ability to communicate the nuances of their needs to potential partners? This course is designed as a creative workshop to help students put their own embodied knowledge in conversation with theories and practices of healthy intimacy. Core texts explore the history of sexual violence as a tool of colonization, the relationship between feminism and sex-positivity in popular culture, and the consent theories that have become central to college campus responses to sexual violence. With the help of performance-based techniques, students will have the opportunity to research issues specific to UMD, design curricula for their peers, and advocate for an end to sexual violence on campus.

HNUH288U is part of the Health Matters thematic cluster and pairs with HNUH288B to complete the cluster. Health Matters courses will be offered through Spring 2025.

0101	Katherine Lieder MW 1:00pm - 2:15pm	Seats (Total: 20) PKT 2102
0201	Katherine Lieder MW 2:30pm - 3:45pm	Seats (Total: 20) PKT 2102

HNUH288W **Over My Dead Body: Law and the Ethics of Healthcare**

In real time during the pandemic, we had a front-row seat to how much global healthcare can be a function not of the law but of human action. From how to prioritize populations for vaccines to individual decisions about masks, we were plunged into an almost daily discussion of the values and moral principles that guide nations and people in making choices about healthcare. This class invites students to explore their sense of right and wrong in the public healthcare debate. We will look at traditional issues such as legal paternalism, informed consent, and governmental distrust. And we will take up pressing current issues like abortion's impact on identity/privacy, disparities in marginalized communities, and biometric technologies. Students will acquire the tools to think critically think about these important issues of fairness and what our current practices reveal about society's values.

Restricted to UH students matriculating in Fall 2020 or later. HNUH288W is part of the Health Matters thematic cluster and pairs with HNUH288B to complete the cluster. Health Matters courseswill be offered through through Spring 2025.

0101	Kerry Tripp W 2:00pm - 4:30pm	Seats (Total: 20) TWS 1313

HNUH300 **Vantage Point Seminar**

Goal-setting and project-design seminar required of all UH students and taken in the second semester of the sophomore year or the first semester of the junior year.

Restricted to UH students matriculating in Fall 2020 or later. Vantage Point is for UH students in their 4th or 5th semester who have already completed or are completing their second cluster or track for the UH Citation.

0101	Katherine Lieder MW 10:00am - 10:50am	Seats (Total: 20) LEF 1201
0201	Christine Jones, Yupeng Jiao MW 9:00am - 9:50am	Seats (Total: 20) ASY 3203
0301	Riva Riley MW 2:00pm - 2:50pm	Seats (Total: 20) KEY 0123

0401	Samuel Holley-Kline MW 3:00pm - 3:50pm	Seats (Total: 20) LEF 1221
0501	Robert Graham MW 1:00pm - 1:50pm	Seats (Total: 20) EDU 2102
0601	Marisa Franco MW 11:00am - 11:50am	Seats (Total: 20) ASY 3203
0701	Ingrid Satelmajer TuTh 12:30pm - 1:20pm	Seats (Total: 20) LEF 1201
0801	Alexandra Harlig TuTh 11:00am - 11:50am	Seats (Total: 20) MTH 0307
0901	Ingrid Satelmajer, Christine Jones TuTh 2:00pm - 2:50pm	Seats (Total: 20) TLF 1103
1001	Leigha McReynolds TuTh 5:00pm - 5:50pm	Seats (Total: 20) KNI 1103

HNUH318T **Political Engagement and Advocacy**

(Perm req)

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: FGSM310. Credit only granted for: HNUH318T or FGSM310.

An examination of questions and issues in the practice of political engagement and advocacy. Guest lecturers drawn from political, civic engagement, and advocacy arenas will visit class and participate in discussions.

0101	Peter Owen M 6:00pm - 9:00pm	Seats (Total: 24) AJC 2119

HNUH319T **Civic Leadership and Human Services**

(Perm req)

Restriction: Must be in the Maryland Fellows Program; and Permission of Department. Cross-listed with: FGSM315.

An examination of important issues, methodologies and tools of civic leadership in relation to human services, especially at the state and local level.

0101	Emily Shetty Tu 5:30pm - 8:30pm	Seats (Total: 23) IRB 1207

HNUH328T **Public Health Policy**

(Perm req)

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: FGSM320. Credit only granted for: UNIV348P, HNUH328T or FGSM320. Formerly: UNIV348P.

An exploration of the major questions and issues facing the U.S. health care system as well as the formulation and implementation of health policy.

0101	Woodie Kessel Tu 3:30pm - 6:30pm	Seats (Total: 25) ESJ 1309

HNUH338T **Homeland and National Security Policy**

(Perm req)

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: FGSM330. Credit only granted for: UNIV348T, HNUH338T or FGSM330. Formerly: UNIV348T.

An examination of the concept of U.S. homeland and national security, threats, and major vulnerabilities in the context of recent history.

0101	Casie Antalis, Andrew Fausett M 6:00pm - 9:00pm	Seats (Total: 21) AJC 2134

HNUH348T **Energy and Environmental Policy**

(Perm req)

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: FGSM340. Credit only granted for: UNIV348E, HNUH348T or FGSM340. Formerly: UNIV348E.

An examination of issues of energy and environmental sustainability through an investigation of policy-making in energy, climate change, and sustainable development.

0101	Ed Fendley M 3:00pm - 6:00pm	Seats (Total: 23) ESJ B0320

HNUH358T **Critical Regions and International Relations**

(Perm req)

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: FGSM350. Credit only granted for: HNUH358T or FGSM350.

An examination of international relations and foreign policy challenges in critical regions.

0101	Danusia Hubah, Eric Ciaramella	Seats (Total: 23)
	Th 7:00pm - 10:00pm	AJC 2119

HNUH359T **International Security and Intelligence**

(Perm req)

Restriction: Must be in the Global Fellows Program; and Permission of Department. Cross-listed with: FGSM355.

Examines the role of intelligence in supporting U.S. security strategy and policy. Students will learn how the U.S. Intelligence Community (IC) is structured and organized, and will explore how intelligence is deployed to support the warfighter, diplomats, and senior-level decisionmakers. The course emphasizes the development of critical thinking and analytic skills, as well as professional writing and oral presentation abilities that are necessary for successful work in national security organizations. The course will feature guest lecturers from real-world practitioners to supplement course readings.

0101	Paul Maykish, William Usher	Seats (Total: 23)
	Th 7:00pm - 10:00pm	ESJ 0215

HNUH368T **U.S. Diplomacy and Policymaking**

(Perm req)

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: FGSM360. Credit only granted for: HNIUH368T or FGSM360.

An examination of questions and issues in the practice of contemporary diplomacy and policy-making. Guest lecturers drawn from Washington policy-making and foreign service communities will visit class and participate in discussion.

0101	Nadia Farra	Seats (Total: 23)
	Tu 6:30pm - 9:30pm	ESJ 1309

HNUH369T **Economic Diplomacy: Challenges and Opportunities**

(Perm req)

Restriction: Must be in the Global Fellows Program; AND Permission of Department. Cross-listed with: FGSM365. Credit only granted for: FGSM365 or HNUH369T.

An examination of political, social, and environmental aspects of the global economy in the context of power competition and technological change.

0101	Andrew Nissen	Seats (Total: 24)
	M 6:00pm - 9:00pm	HJP 2242

HNUH378T **Science Diplomacy: Foreign Policy & Science, Technology, and Innovation**

(Perm req)

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: FGSM370. Credit only granted for: UNIV389F, HNUH378T or FGSM370. Formerly: UNIV389F.

An exploration of the critical roles scientific knowledge and technological innovation play in the formation and implementation of foreign policy issues, including energy and climate change, public health, space and innovation, and economic development.

0101	Jeffrey Haeni, Jonathan Margolis W 5:30pm - 8:30pm	Seats (Total: 24) AJC 2119

HNUH388T **Responses to Global Challenges**

(Perm req)

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: FGSM380. Credit only granted for: UNIV389B, HNUH388T or FGSM380. Formerly: UNIV389B.

An examination of global issues and responses primarily from the perspective of the practitioner. The focus will be on social, humanitarian, and human rights issues in different global contexts.

0101	Rhoda Margesson W 5:30pm - 8:30pm	Seats (Total: 25) HJP 2242

HNUH398P **Federal and Global Experiential Learning**

(Perm req)

Restriction: Permission of instructor. Repeatable to 9 credits if content differs. Cross-listed with: FGSM398. Credit only granted for: FGSM398 or HNUH398P.

This is the experiential course component of the Federal Fellows Program and Global Fellows Program.

0101	Jayakumar Arasan, Joan Burton Class time/details on ELMs	Seats (Total: 25) ONLINE
0201	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE

HNUH398T **Global Health Challenges and Water Security**

(Perm req)

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: FGSM390. Credit only granted for: HNUH398T, HONR378M, or FGSM390.

An examination of questions and issues of global health and water security. Expert practitioners will also visit class and participate in discussions.

0101	Jonathan Margolis, Julien Katchinoff W 3:00pm - 6:00pm	Seats (Total: 24) AJC 2132

HONR Honors Fall 2023

HONR349V **Honors Colloquium; Dubai: Global Immersion Experience**

A series of seminars, often interdisciplinary and sometimes team taught. Subjects may vary.

Contact department for information to register for this course.

HONR358A **Honors Practicum**

For student section leaders of HONR100 or HONR200.

Contact department for information to register for this course.

HONR368A **MGA Legislative Seminar**

(Perm req)

Prerequisite: Students who have taken courses with comparable content may contact the department; or ENGL101. Restriction: Permission of ARHU-English department. Cross-listed with: ENGL381. Credit only granted for: HONR368A or ENGL381. Additional information: Application required. Contact english@umd.edu for more information.

Prepares students to intern for the Maryland General Assembly. Introduces standard legislative genres and assigns extended practice in researching legislative issues.

Cross-listed with ENGL381. Credit only granted for one of the following: ENGL381 or HONR368A. Admission to this course is by application only.

Click here for more details.

0101	Thomas Lowderbaugh Tu 3:30pm - 6:00pm	Seats (Total: 15) TWS 0232

IDEA Academy for Innovation & Entrepreneurship Fall 2023

IDEA101 **The Carillon Studio: Creative Problem Solving and Designing Your Maryland Experience**

Restriction: Must be in the Carillon Communities Program.

Students learn creative problem solving and collaborative strategies that will drive academic success and empower students to tackle big questions.

Restricted to students in Carillon Communities.

0101	Courtney Holder **Meets August 28, 2023 - November 17, 2023** Tu 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) JMZ 2207 BRB 1101	 Discussion
0102	Karla Monroy **Meets August 28, 2023 - November 17, 2023** Tu 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) JMZ 0103 BRB 1101	 Discussion
0103	Markell Saunders **Meets August 28, 2023 - November 17, 2023** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) JMZ 1215 BRB 1101	 Discussion
0104	Veronica Vaisman **Meets August 28, 2023 - November 17, 2023** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) ESJ 2101 BRB 1101	 Discussion
0105	Louisa Nkrumah **Meets August 28, 2023 - November 17, 2023** W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) ESJ 2101 BRB 1101	 Discussion
0106	Leslie Krafft **Meets August 28, 2023 - November 17, 2023** Tu 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) ESJ 2101 BRB 1101	 Discussion
0107	Jaden Mikoulinskii **Meets August 28, 2023 - November 17, 2023** Tu 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) JMZ 1215 BRB 1101	 Discussion

0108	Tony Randall **Meets August 28, 2023 - November 17, 2023** Tu 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) JMZ 0125 BRB 1101	 Discussion
0109	Isabelle Van Benschoten **Meets August 28, 2023 - November 17, 2023** W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) PLS 1115 BRB 1101	 Discussion
0110	Sage Burch **Meets August 28, 2023 - November 17, 2023** W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) PLS 1117 BRB 1101	 Discussion
0111	Miriam Fraga **Meets August 28, 2023 - November 17, 2023** W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) PLS 1162 BRB 1101	 Discussion
0112	Mitch Woolley **Meets August 28, 2023 - November 17, 2023** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) SYM 0209 BRB 1101	 Discussion
0113	Nikki Newman **Meets August 28, 2023 - November 17, 2023** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 20) KEY 0117 BRB 1101	 Discussion
0114	Tami Smith **Meets August 28, 2023 - November 17, 2023** W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) KEY 0116 BRB 1101	 Discussion

0115	Jordan Adams **Meets August 28, 2023 - November 17, 2023** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) JMZ 1120 BRB 1101	 Discussion
0116	Tion Taylor **Meets August 28, 2023 - November 17, 2023** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) JMZ 0118 BRB 1101	 Discussion
0117	Jesus Ramos Miramontes **Meets August 28, 2023 - November 17, 2023** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) JMZ 0122 BRB 1101	 Discussion
0118	Daria Powell **Meets August 28, 2023 - November 17, 2023** W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 20) HBK 0108 BRB 1101	 Discussion
0120	Anissa Scharborough W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 22) JMZ 1224 BRB 1101	 Discussion
FC01	William Nichols MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection. Students who enroll in IDEA101 FC01 must also enroll in FMSC190 FC01. Enrollment in these courses enrolls a student in the Carillon Communities living-learning program.*	Seats (Total: 24) MMH 1304	

IDEA201 **Innovation Tools & Mindsets**

Credit only granted for: IDEA201 or IDEA258A. Formerly: IDEA258A.

Challenges assumptions around what is needed to innovate and who innovators are. Through hands-on activities and reflection, you'll be invited to step out of your comfort zone, think and work in new ways, and gain confidence in your creative abilities.

0101	Brooke Smith Tu 2:30pm - 3:45pm	Seats (Total: 180) ONLINE

IDEA258U **Special Topics in Innovation; Introduction to UI/UX Design**

Special topics in innovation

What does "User Experience" mean? It was a term coined by cognitive psychologist and designer Don Norman in the 1990s on the cusp of the new digital era; however, the field in practice has existed long before that. Unfortunately, due to its over use and misuse, the pure concept of UX has become lost in the weeds and details of all of its components and methods. In this course, we will take a deep look at the true meaning of UX as simply "a user's experience" and what that means for you as both a designer and a user. You will learn about core UX principles and methodologies from both an academic and practical standpoint and be challenged to apply what you learn in classroom workshops and assignments. Finally, you will be asked to think both inside and outside the bounds of technology to find innovative solutions to real world design problems.

0101	Katherine-Aria Close, Mira Azarm M 4:00pm - 5:30pm	Seats (Total: 30) ESJ 2101

IDEA311 **Design Your Purpose**

Credit only granted for: IDEA311 or IDEA379A. Formerly: IDEA379A.

What do you want to do once you graduate? What about with your life? These are the big questions we begin to tackle in this course. Use design methods and mindsets to explore your personal and professional development goals and explore potential career paths. Using empathy, brainstorming, and prototyping techniques, you'll imagine potential futures for yourself and test them to see if they are a good fit for you.

0101	Brooke Smith, Christina Hnatov Class time/details on ELMs	Seats (Total: 40) ONLINE

IDEA398A **Special Topics in Coaching; Coaching in STICs**

(Perm req)

Special topics in coaching others

Contact department for information to register for this course.

IDEA398C **Special Topics in Coaching; Carillon Peer Mentors**

(Perm req)

Special topics in coaching others

0101	Erica Estrada-Liou, Benjamin Beltran F 2:00pm - 2:50pm Contact instructor or department for details.	Seats (Total: 20) ESJ 2101

IDEA459 **The Innovation Studio**

In this class, we'll use human-centered design practices to develop performance-based and curricular experiments for future implementation at the National Orchestral Institute + Festival (NOI+F) at UMD. Students will have the opportunity to connect the work we do in class to their own interests related to the visual and performing arts. Experience with classical music performance and/or human-centered design practices is optional. The class is highly experiential, collaborative, and reflective. This work is done through a partnership between NOI+F and the Academy for Innovation and Entrepreneurship to create innovation-related experiences at the festival every year.

Cross-listed with IDEA459. Credit only granted for IDEA459 or IDEA659. Students from across performing and visual arts disciplines will collaborate using human-centered design tools and mindsets. Experiments will be devised around themes of relevance, audience engagement, radicalcollaboration, and creative placemaking for potential implementation in future iterations of the National Orchestral Institute+ Festival. Each student will also conceptualize and prototype an interdisciplinary performance experiment connected to their personal,professional, and creative interests. Students in the graduate version will be expected to conduct additional research and documentation.

0101	Christina Hnatov, Mira Azarm	Seats (Total: 25)
	TuTh 9:30am - 10:45am	PAC 1809

IDEA498 **Independent Study: Experiments in Innovation**

(Perm req)

Apply design thinking and/or lean startup concepts to your own real-world project, which may involve a partner organization. This course requires a high degree of self-direction in all aspects of the project including defining specific milestones and deliverables. There will be regular coaching from an Academy for Innovation and Entrepreneurship team member.

Contact department for information to register for this course.

IDEA659 **The Innovation Studio**

In this class, we'll use human-centered design practices to develop performance-based and curricular experiments for future implementation at the National Orchestral Institute + Festival (NOI+F) at UMD. Students will have the opportunity to connect the work we do in class to their own interests related to the visual and performing arts. Experience with classical music performance and/or human-centered design practices is optional. The class is highly experiential, collaborative and reflective. Students in the graduate version of the course will conduct additional research during various project stages. This work is done through a partnership between NOI+F and the Academy for Innovation and Entrepreneurship to create innovation-related experiences at the festival every year.

Cross-listed with IDEA459. Credit only granted for IDEA459 or IDEA659. Students from across performing and visual arts disciplines will collaborate using human-centered design tools and mindsets. Experiments will be devised around themes of relevance, audience engagement, radicalcollaboration, and creative placemaking for potential implementation in future iterations of the National Orchestral Institute+ Festival. Each student will also conceptualize and prototype an interdisciplinary performance experiment connected to their personal,professional, and creative interests. Students in the graduate version will be expected to conduct additional research and documentation.

0101	Mira Azarm, Christina Hnatov TuTh 9:30am - 10:45am	Seats (Total: 25) PAC 1809

IDEA698 **Independent Study in Design Thinking**

(Perm req)

Graduate students apply design thinking and/or lean startup concepts to a real-world project. This course requires a high degree of self-direction in all aspects of the project including defining specific milestones and deliverables. There will be regular coaching from an Academy for Innovation and Entrepreneurship team member.

Restriction: Permisson required by the Academy for Innovation and Entrepreneurship. Graduate students apply design thinking and/or lean startup concepts to a real-world project. This course requires a high degree of self-direction in all aspects of the project including defining specific milestones and deliverables. There will be regular coaching from an Academy for Innovation and Entrepreneurship team member.

0101	Mira Azarm Contact instructor or department for details.	Seats (Total: 6)

IMDM Immersive Media Design Fall 2023

IMDM101 **Introduction to Immersive Media**

Credit only granted for: CMSC101 or IMDM101. Formerly: CMSC101.

An introduction to the basic practices, concepts and issues in Immersive Media Design. Conducted as a hybrid studio/lecture course, students will work collaboratively in teams to complete both research and practical projects, including surveying current artists and practice in immersive media; completing studio-based interactive projects that fuse computational media into physical objects; and working in teams to ideate and execute large scale, immersive media works.

0101	Mollye Bendell MW 11:00am - 12:15pm	Seats (Total: 30) AVW 3258
0201	Johab Silva TuTh 12:30pm - 1:45pm	Seats (Total: 30) AVW 3258
0301	Roger Eastman, Myungin Lee TuTh 9:30am - 10:45am	Seats (Total: 30) AVW 3258

IMDM127 **Creative Coding for Digital Media**

Restriction: Must not have completed any courses from CMSC131-499 course range; and must not be concurrently enrolled in CMSC131. Credit only granted for: IMDM127 or CMSC125.

An introduction to the principles of Computer Science supported by exercises in computer programming with an emphasis on creative coding, algorithmic image creation and manipulation, and interactive experiences. Students will make use of both exploratory coding approaches, and problem/solution-driven approaches, to design and implement software with visual and auditory output. The course also includes an introduction to a wide variety of issues relating to computer science and software, including software design and construction, problem-solving, and fundamental questions about the nature, limitations, and ethical use of computers and algorithms. It also explores how creativity tools can be used and as well as providing some insight into how they are implemented. The course is targeted to students with a broad diversity in backgrounds and interests. No prerequisites are assumed beyond high school algebra.

0101	Roger Eastman MWF 9:00am - 9:50am	Seats (Total: 36) AVW 3258

IMDM150 **Digital Media Theory and Culture**

Restriction: Must be in the Immersive Media Design program; or permission of IMDM - Immersive Media Design program. Credit only granted for: ARTT150 or IMDM150.

An introduction to the fundamental structures and themes of digital culture in contemporary society. This course will provide you with a theoretical grounding in which to understand the current landscape of digital media culture, design and art. As an introductory course for the Immersive Media Design major, the focus will be on contextualizing immersive digital media such as virtual reality, augmented reality, immersive projection, and electronic art installation through reading, writing and discussion. Students will have opportunities to experience a range of these technologies first hand.

0101	Alyssa Ryan MWF 10:00am - 10:50am *Open to all UMD students.*	Seats (Total: 30) AVW 3258

IMDM227 **Introduction to Computational Media**

Prerequisite: Minimum grade of C- in IMDM101 and IMDM150; and minimum grade of C- in CMSC131 or (IMDM127 and CMSC122). Restriction: Must be in the Immersive Media Design program or Permission of IMDM - Immersive Media Design program.

Comprehensive introduction to programming for visual, auditory and tactile art. Introduction to basic programming constructs, algorithms, data structures, and data transformations for creating and managing multimedia content, and conducting user interaction. Emphasis on programming and software design including the interfaces between hardware and software in multimedia devices, creating graphical user interfaces, and basic graphics and sound rendering.

0101	Stevens Miller TuTh 11:00am - 12:15pm	Seats (Total: 27) PLS 1129
0201	Stevens Miller TuTh 9:30am - 10:45am	Seats (Total: 27) PLS 1129

IMDM327 **Computational Virtual Reality**

Prerequisite: Minimum grade of C- in IMDM227 and CMSC132. Restriction: Must be in the Immersive Media Design, Computing program; or Permission of IMDM - Immersive Media Design program.

Introduction to mechanisms and programming for virtual reality, augmented reality, and related technologies. Covers elements of a standard VR system, including creating, managing and rendering visual and audio VR content, tracking orientation and positions of head mounted display (HMD) and controller, rendering stereo imagery for VR headsets, and implementing approaches for user interactivity.

0101	Roger Eastman, Myungin Lee	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	AVW 3258

IMDM350 **Advanced Digital Media Theory**

Prerequisite: Minimum grade of C- in IMDM150. Restriction: Must be in the Immersive Media Design, Emerging Creatives program; or Permission of IMDM - Immersive Media Design program.

Advanced theories and concepts pertinent to the fields of immersive media design, new media art, design, and cultural technology. Also looks at ways in which contemporary societal norms are being shaped by game culture, social and mobile media, AR/VR escapism, network aesthetics, hacktivism, open-source culture, neural networks, artificial intelligence, and machine learning, among others. This course addresses the broad range of ways in which the accelerating pace of technological advances influence how we mediate the world around us and examines the environmental, social, political, and ethical implications of its use.

0101	Jason Farman	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	AVW 3258

IMDM490 **Senior Capstone I**

Prerequisite: Minimum grade of C- in IMDM290. Restriction: Must be in Immersive Media Design major Computing or Emerging Creatives track; and must have earned a minimum of 86 credits.

The first course in a two-semester senior capstone sequence. During IMDM490 students will research, design and prototype a large-scale immersive media design project, in preparation for fully implementing and exhibiting the project in IMDM491 Capstone II. Students will have the opportunity to apply design and technical skills they have acquired in previous courses as well as focus on the organizational and production skills needed for a substantial, longer term project to achieve an artistic or technical goal.

0101	Evan Golub, Ian McDermott	Seats (Total: 30)
	MW 2:00pm - 3:15pm	AVW 3258

IMDM499A **Independent Undergraduate Research**

Directed research under the supervision of a faculty member in immersive media. Students and supervising faculty member will agree to a research plan which must be approved by the department. As part of each research plan, students should produce a final paper on their research.

Contact department for information to register for this course.

IMMR Immigration Studies Fall 2023

IMMR200 **Introduction to Immigration and Migration Studies**

Introduces concepts and theoretical interpretations about the causes of international migration; provides an historical overview of the main flows of immigration to the U.S.; analyzes economic, political, social, and cultural aspects that impact the immigrants' settlement process.

0101	Colleen Woods	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	KEY 0126

IMMR394 **Growing Up Asian American: The Asian Immigrant Family and the Second Generation**

Cross-listed with: AAST394, AMST324. Credit only granted for: AAST394, AAST398E, AMST324, AMST328V, IMMR319G or IMMR394. Formerly: AAST398E.

An interdisciplinary course examines the experiences of children of Asian immigrants in the U.S., focusing on intergenerational dynamics in the Asian immigrant family, their intersections with race, gender, class, sexuality, and religion, and how these shape second-generation Asian American life. Topics include identity and personhood, the model minority myth and education, work and leisure, language and communication, filiality and disownment, mental health and suicide.

0101	Joan Hong	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	PHY 2211

IMMR399 **Internship in Immigration/Migration Studies**

(Perm req)

Internship experience with an organization that works with or studies migration or immigrant populations. This experiential learning course provides training that enriches the students' academic field of study and the IMMR transcript notation. Students submit a final written report of how the experience ties into their major field of study.

Prerequisite: HIST222, IMMR200, or IMMR400; and permission of the Center for Global Migration Studies required. Restriction: Minimum cumulative GPA of 2.5; and must have earned a minimum of 60 credits. Repeatable to 6.0 credits if content differs. Additional information: This course is intended primarily for students seeking the Immigration and Migration Studies transcript notation, but exceptions will be considered for students with educational or career interests that lie in this area. Student internships must be approved by the Executive Director of the Center for Global Migration Studies. Students must secure an appropriate faculty mentor for the internship course. An internship course will be approved only if a faculty supervisor is available. Internship experience with an organization that works with or studies migration or immigrant populations. This experiential learning course provides training that enriches the students' academic field of study and the IMMR transcript notation. Students submit a final written report of how the experience ties into their major field of study.

0101	Katarina Keane	Seats (Total: 2)	
	Contact instructor or department for details.		

INAG Institute of Applied Agriculture Fall 2023

INAG100 Introduction to Plant Science

Restriction: Must be a student in the Institute of Applied Agriculture; or permission of AGNR-Institute of Applied Agriculture department. Credit only granted for: INAG100, PLSC100, PLSC101, PLSC110 or PLSC112.

A general introduction to plant science designed to provide the students with a working knowledge of the fundamental structures and processes of plants. Content includes plant anatomy, physiology, genetics and environmental relationships.

0101	Kenneth Ingram	Seats (Total: 15)	
	MWF 8:00am - 8:50am	JUL 1123	
	W 9:00am - 10:50am	JUL 1111	Lab
0102	Kenneth Ingram	Seats (Total: 15)	
	MWF 8:00am - 8:50am	JUL 1123	
	F 9:00am - 10:50am	JUL 1111	Lab

INAG102 Agricultural Entrepreneurship

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority in enrollment will be given to students within the Institute of Applied Agriculture. May not count toward any BMGT major or minor requirement.

This course introduces fundamental concepts related to launching a profitable agricultural business. Topics include idea generation, opportunity recognition, conducting feasibility studies, assembling the entrepreneurial team, and financing the new venture, among others. Students will learn knowledge and skills relevant to starting a new agricultural business.

0101	Dane Grossnickle MWF 12:00pm - 12:50pm	Seats (Total: 35) JUL 1123

INAG103 **Agricultural Marketing**

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority in enrollment will be given to students within the Institute of Applied Agriculture. Course cannot be used to fulfill a requirement for a Robert H. Smith School of Business major or minor.

Principles of market demand are used to develop a consumer oriented market strategy for agricultural businesses. Topics include market structures, target marketing, market segmentation, niche marketing and direct marketing. Market concepts unique to agriculture products are also covered.

0101	Meredith Epstein MWF 11:00am - 11:50am	Seats (Total: 25) JUL 1123

INAG106 **Pesticide Use and Safety**

Restriction: Must be in a major in AGNR-Institute of Applied Agriculture department; or must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority enrollment will be given to students in the IAA program or to students in the College of Agriculture and Natural Resources (AGNR).

An overview of pesticide use and safety. Topics include environmental protection, labeling, personal safety, first aid, formulation and chemistry, equipment, disposal, storage, record-keeping and liability. The course prepares students to take the Maryland State test for a private applicator's license.

0101	Ronald Myers Class time/details on ELMs	Seats (Total: 30) ONLINE

INAG110 **Oral Communication**

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, THET285.

A study of how perception, self-concept, and verbal and nonverbal communications affect the communication process as it emerges in the workplace. The course provides skill training in speech writing, public speaking, group communication, interpersonal communication, listening, and responding.

0101	Eric Dunning MWF 8:00am - 8:50am	Seats (Total: 19) EGR 1110
0201	Chelsea Mays-Williams MWF 8:00am - 8:50am	Seats (Total: 19) EGR 1102
0301	Eric Dunning MWF 9:00am - 9:50am	Seats (Total: 19) EGR 1110

0401	Robert Ballenger MWF 9:00am - 9:50am	Seats (Total: 19) CHE 2145
0501	Chelsea Mays-Williams MWF 9:00am - 9:50am	Seats (Total: 19) EGR 1102
0701	Chelsea Mays-Williams MWF 10:00am - 10:50am	Seats (Total: 19) EGR 3114
0801	Lori Sefton MWF 10:00am - 10:50am	Seats (Total: 19) EGR 3102
0901	Eric Dunning MWF 11:00am - 11:50am	Seats (Total: 19) SYM 0209
1001	Lori Sefton MWF 11:00am - 11:50am	Seats (Total: 19) EGR 3102
1101	Robert Ballenger MWF 11:00am - 11:50am	Seats (Total: 19) CHE 2118
1201	George Kurtzweil MWF 12:00pm - 12:50pm	Seats (Total: 19) WDS 1127
1301	Lori Sefton MWF 12:00pm - 12:50pm	Seats (Total: 19) EGR 3102
1401	David Gormong MWF 12:00pm - 12:50pm	Seats (Total: 19) EGR 1110
1501	David Gormong MWF 1:00pm - 1:50pm	Seats (Total: 19) EGR 1110
1601	Samuel Rubin MWF 1:00pm - 1:50pm	Seats (Total: 19) HBK 1108
1701	George Kurtzweil MWF 1:00pm - 1:50pm	Seats (Total: 19) WDS 1127
1801	David Gormong MWF 2:00pm - 2:50pm	Seats (Total: 19) EGR 1110

1901	George Kurtzweil MWF 2:00pm - 2:50pm	Seats (Total: 19) WDS 1127
2001	Samuel Rubin MWF 2:00pm - 2:50pm	Seats (Total: 19) HBK 1108
2101	Amy Fisher M 3:00pm - 4:15pm W 3:00pm - 4:15pm	Seats (Total: 19) ONLINE PLS 1129
2201	Amy Fisher M 6:00pm - 8:45pm	Seats (Total: 19) PLS 1115
2301	Amy Fisher W 6:00pm - 8:45pm	Seats (Total: 19) PLS 1115
2401	Chelsea Mays-Williams TuTh 8:00am - 9:15am	Seats (Total: 19) EGR 1110
2501	Eric Dunning TuTh 8:00am - 9:15am	Seats (Total: 19) CHE 2140
2601	Chelsea Mays-Williams TuTh 9:30am - 10:45am	Seats (Total: 19) EGR 3114
2701	Eric Dunning TuTh 9:30am - 10:45am	Seats (Total: 19) CHE 2140
2801	Lori Sefton TuTh 9:30am - 10:45am	Seats (Total: 19) WDS 1131
2901	Lori Sefton TuTh 11:00am - 12:15pm	Seats (Total: 19) WDS 1131
3001	David Gormong TuTh 11:00am - 12:15pm	Seats (Total: 19) WDS 1102
3101	Robert Ballenger TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1115

3201	Robert Ballenger TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1115
3301	George Kurtzweil TuTh 12:30pm - 1:45pm	Seats (Total: 19) WDS 1131
3401	David Gormong TuTh 12:30pm - 1:45pm	Seats (Total: 19) WDS 1102
3501	George Kurtzweil TuTh 2:00pm - 3:15pm	Seats (Total: 19) WDS 1131
3601	Amy Fisher Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 19) JUL 1123 ONLINE
3701	Samuel Rubin TuTh 2:00pm - 3:15pm	Seats (Total: 19) WDS 1102
3801	Samuel Rubin TuTh 3:30pm - 4:45pm	Seats (Total: 19) WDS 1102
3901	Amy Fisher Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 19) JUL 1123 ONLINE
4001	Samuel Rubin TuTh 5:00pm - 6:15pm	Seats (Total: 19) WDS 1102

INAG110S **Oral Communication**

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, THET285.

A study of how perception, self-concept, and verbal and nonverbal communications affect the communication process as it emerges in the workplace. The course provides skill training in speech writing, public speaking, group communication, interpersonal communication, listening, and responding.

Restricted to College Park Scholars.

0601	Robert Ballenger MWF 10:00am - 10:50am	Seats (Total: 19) CHE 2145

INAG123 **People, Planet, and Profit: Digging Into Sustainable Agriculture**

Investigates the principles and practices of sustainable agriculture and their relationship to the greater food system. Explores the social (people), environmental (planet), and economic (profit) impacts of agriculture - from challenges to opportunities. INAG123 applies the principles of sustainability to various agricultural production practices and systems - at a range of different scales - to see what lessons these varied models can offer. Along the way, we will consider domestic issues such as food safety and distribution, food justice, cultural relevance, biodiversity, farming communities, and effects on local economies.

Students will have in person field trips scheduled and must provide their own transportation (actual dates to be determined).

0101	Meredith Epstein W 2:00pm - 5:00pm	Seats (Total: 25) JUL 1123

INAG199 **Special Problems**

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department. A detailed study, including a written report, involving a current issue in an agricultural area that relates to the student's major. The study is conducted under the direction of a faculty member. A maximum of three credit hours of special problems may be applied toward graduation.

0101	Geoffrey Rinehart Contact instructor or department for details.	Seats (Total: 10)
0201	Meredith Epstein Contact instructor or department for details.	Seats (Total: 10)
0301	Kenneth Ingram Contact instructor or department for details.	Seats (Total: 10)
0401	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0501	Heather McHale Contact instructor or department for details.	Seats (Total: 10)
0601	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
0701	Thomas Mazzone Contact instructor or department for details.	Seats (Total: 5)

INAG199C **Special Problems; Special Problems in AgriScience**

(Perm req)

Prerequisite: Students must successfully complete an accredited high school agriculture program with a minimum of 4 agriculture courses with a minimum grade of B in each course. Demonstrates the application of scientific principles of agriculture by developing and presenting an oral report on a capstone project relevant to ccurrent agriculture issues.

0101	Heather McHale	Seats (Total: 10)
	Contact instructor or department for details.	

INAG199D **Special Problems; Agricultural Tractor Operations and Maintenance**

Restriction: IAA students are given priority. Other UMD students will be granted permission to enroll if seats are available. Class will be held at the Central Maryland Research and Education Center (CMREC), Clarksville Facility, 4240 Folly Quarter Road, Ellicot City, MD 21042. Dates are September 23 and 24, 2023, with a rain date of September 30 and October 1, 20232. Students will need to provide their own transportation to and from the facility. This class introduces students to the operation and maintenance of agricultural tractors and farm equipment. Students learn to safely perform regular maintenance, and handle materials.

0101	Jeff Semler	Seats (Total: 14)
	Contact instructor or department for details.	

INAG199E **Special Problems; Professional Horticulture**

Prerequisite: Only open to IAA students who have successfully completed the approved CPH program of study with an unweighted cumulative grade point average of 3.0 or higher for all completed CPH courses as noted on the official high school transcript, and passed the student CPH certification exam administered by the Maryland Nursery, Landscape and Greenhouse Association, Inc. (MNLGA).

0101	Heather McHale	Seats (Total: 10)
	Contact instructor or department for details.	

INAG201 **Agricultural Human Resources Management**

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: May not count toward any BMGT major or minor requirement.

The course introduces students to the study and application of the basic principles of human relations and personnel management. A variety of approaches to recruiting, training, delegating, motivating, and appraising employees are among the topics discussed.

0101	Kenneth Ingram	Seats (Total: 30)
	TuTh 9:30am - 10:45am	JUL 1123

INAG203 **Agricultural Finance**

Restriction: Students at the Institute of Applied Agriculture (IAA); or students at the College of Agriculture and Natural Resources (AGNR); or permission may be granted to other students based on available space. Additional information: Course cannot be used to fulfill a requirement for a Robert H. Smith School of Business major or minor.

This course introduces fundamental concepts related to the financial management of an agricultural business. Topics include financial statement analysis, financial planning, the relationship between risk and return, the time value of money, costs associated with borrowed funds, sources of capital, financial markets and intermediaries in agriculture, and personal finance, among others. Students will gain financial knowledge and skills necessary for managing a profitable agricultural business.

0101	Dane Grossnickle	Seats (Total: 25)	
	TuTh 11:00am - 12:15pm	JUL 1123	

INAG208 **Understanding Turfgrass: Preparation for Intercollegiate Turfgrass Competitions**

This course reinforces students' understanding of turf agronomic and integrated pest management principles of turfgrass management. This class is designed to prepare students for intercollegiate turf science competitions: the Golf Course Superintendents Association of America Turf Bowl and the Sports Field Managers Association Student Challenge.

Restriction: For students from the Institute of Applied Agriculture and other departments from the College of Agriculture and Natural Resources, or by permission of the department. This course reinforces students' understanding of turf agronomic and integrated pest management principles of turfgrass management. This class is designed to prepare students for intercollegiate turf science competitions: the Golf Course Superintendents Association of America Turf Bowl and the Sports Field Managers Association Student Challenge. While the basic content areas in the course schedule will remain the same, this course will be tailored each year to reflect current trends in the turf industry. Course is repeatable for up to 4 credits; returning students will have the opportunity to provide leadership in class discussions.

0101	Geoffrey Rinehart	Seats (Total: 10)	
	Tu 5:00pm - 5:50pm	JUL 1111	

INAG226 **Diseases of Ornamentals and Turf**

Recommended: Completion of one of the following is recommended: PLSC 253, PLSC 254, INAG 107, PLSC 305. Additional information: Priority in enrollment will be given to students within the Institute of Applied Agriculture.

The course will cover various topics such as plant pathology, disease control practices, and an in depth coverage of the major diseases of ornamentals and turfgrasses in the Mid-Atlantic region. Emphasis will be placed on identification of disease signs and symptoms. Over 50 diseases will be covered during the semester.

0101	Geoffrey Rinehart	Seats (Total: 15)	
	Tu 12:30pm - 2:20pm	JUL 1111	
	Th 12:30pm - 2:20pm	JUL 1111	Lab

INAG231 **Insects of Ornamentals and Turf**

Recommended: PLSC253, PLSC254, or PLSC305; or INAG107. Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority enrollment will be given to students in the IAA program.

A study of the major insect pests and beneficial insects of ornamental plants and turfgrasses in the Mid-Atlantic region. The student will be responsible for insect identification, life history, and control practices of approximately 100 insects. An insect collection consisting of both insect pests and beneficial insects is required.

0101	Geoffrey Rinehart	Seats (Total: 18)	
	WF 10:00am - 10:50am	JUL 1123	
	M 9:00am - 10:50am	JUL 1111	Lab

INAG237 **GPS & Drone Applications in Surveying**

Restriction: Must be an Institute of Applied Agriculture student; or permission of the Institute of Applied Agriculture. Additional information: Course is open to Institute of Applied Agriculture students and permission will be granted to other students based on available seats, with priority given to students from majors in the College of Agriculture and Natural Resources.

The principles of land measurement using Global Positioning System (GPS) devices and Unmanned Aerial Vehicles (UAVs--i.e. drones) to collect data and generate maps. Students will use Pix4D and Trimble TerraFlex software to post-process collected data and learn how we can use this data to make informed land management decisions. Students will also be prepared to successfully earn their Part 107 Commercial Drone Pilots License as part of the course.

0101	Thomas Mazzone	Seats (Total: 9)	
	W 11:00am - 11:50am	ANS 0504	
	F 11:00am - 2:00pm	ANS 0504	

INAG242 **Golf Course Design and Construction**

An appreciation and understanding of the game of golf is obtained through lectures on the history, organizations, and rules of the game. Golf course design theories, great architects and their courses, and construction specifications are discussed. Students will complete two golf course design projects.

0101	Kenneth Ingram	Seats (Total: 25)	
	MW 2:00pm - 2:50pm	JUL 1111	
	W 3:00pm - 4:50pm	JUL 1111	Lab

INAG250 **Fundamentals of Agricultural Mechanics**

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources OR Permission of AGNR-Institute of Applied Agriculture Department. Credit only granted for: PLSC204 or INAG250. Additional information: Priority given to IAA majors and AGNR students whose major requires this course. Permission will be granted to other students on seats available basis.

A comprehensive course that teaches the fundamentals of agricultural related mechanics. Lecture and lab exercises will cover the broad range of topics associated with agricultural mechanics including electricity, plumbing, welding processes, and wood and metal working applications. Emphasis will be given to the design and installation of electrical circuits. It will also include project planning and implementation including development of safety protocols for each area of study and introduction of GPS equipment and software for survey data collection.

Students must pay a $75 course materials fee.

0101	Thomas Mazzone TuTh 9:30am - 12:20pm	Seats (Total: 10) ANS 0504
0201	Thomas Mazzone TuTh 2:00pm - 4:50pm	Seats (Total: 10) ANS 0504

INAG288 **Internship**

On-site internship training in the student's major area of study. Students must complete a minimum of 320 working hours at an approved work site. Course work also includes weekly written assignments and a site visit assessment.

0101	Geoffrey Rinehart Contact instructor or department for details.	Seats (Total: 5)
0201	Meredith Epstein Contact instructor or department for details.	Seats (Total: 5)
0301	Kenneth Ingram Contact instructor or department for details.	Seats (Total: 5)
0501	Heather McHale Contact instructor or department for details.	Seats (Total: 5)
0701	Thomas Mazzone Contact instructor or department for details.	Seats (Total: 5)

INAG289 **Internship Experience & Professional Development**

Professional development and reflective analysis of the experience from the Practicum (INAG 288). Based on their 320-hours of internship work experience, students will write an internship report and analysis, deliver an oral presentation, and develop professional skills and materials needed to enter their careers.

Prerequisite: INAG288. Restriction: Must be enrolled in the Institute of Applied Agriculture students; or permission of the Institute of Applied Agriculture.

0101	Rebecka Tetter M 3:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 5) JUL 1123 ONLINE	Discussion
0102	Rebecka Tetter M 3:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 5) JUL 1123 ONLINE	Discussion
0103	Rebecka Tetter M 3:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 5) JUL 1123 ONLINE	Discussion
0104	Rebecka Tetter M 3:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 4) JUL 1123 ONLINE	Discussion
0105	Rebecka Tetter M 3:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 5) JUL 1123 ONLINE	Discussion

INAG299B **Supervised Work Experience; Internship II**
Contact department for information to register for this course.

INFM Information Management Fall 2023

INFM600 **Information Environments**

Restriction: Permission of INFO-College of Information Studies.

An exploration of various models and methodologies used to capture and deploy internal and external information and knowledge in a number of settings; organizational analysis in terms of information creation, flow, sharing, conservation, and application to problem solving; internal and external influences on the management of information and knowledge; various information flows; information management in a variety of settings.

IM01	Waqas Shah M 6:00pm - 8:45pm	Seats (Total: 40) HBK 0109	

INFM603 **Information Technology and Organizational Context**

Restriction: Must not have completed LBSC671 or LBSC690; and permission of INFO-College of Information Studies.

Application of communication and information technologies to support work processes, including technology-enhanced communication networks, computer-supported collaborative work, decision-support systems, interactive systems, and systems analysis. Acquisition of information systems and their integration into the organization.

IM01	Vedat Diker, Pamela Duffy W 6:00pm - 8:45pm	Seats (Total: 40) HBK 0302J
IM02	Vedat Diker, Pamela Duffy W 6:00pm - 8:45pm	Seats (Total: 5) ONLINE

INFM620 **Introduction to Strategic Information Management**

Prerequisite: INFM612; or LBSC631; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Strategic management is the comprehensive collection of tasks, activities, and processes organizations use to coordinate and align resources and actions with its mission, vision, and strategy. Due to changes occurring in our global landscape, the integration of business and technology is compelling organizations to move beyond traditional, reactive, and silo-based data management approaches to a managed, predictive approach that treats information as a strategic asset and uses it to create business value. To meet challenges of this hyper-competitive environment, this course will provide you with an introduction to the strategic management of information assets for competitive differentiation and sustained business success.

IM01	Vikas Sahasrabudhe Class time/details on ELMs	Seats (Total: 40) ONLINE

INFM719 **Independent Study**

(Perm req)

Intensive individual study under faculty supervision.

Contact department for information to register for this course.

INFM737 **Information Management Capstone Experience**

Prerequisite: INFM736; and must have earned a minimum of 27 credits in the MIM Program. Or permission of instructor. Restriction: Must be in Information Management (Master's) program; and permission of INFO-College of Information Studies.

The Information Management Capstone Experience I and II are the culminating experience of the Master of Information Management program, taken in the students final two semesters. The capstone experience provide students with the opportunity to integrate and synthesize the knowledge and skills acquired throughout their MIM course work while working in a real world Information Management project. These courses must be taken in succession.

IM01	David Loshin Th 2:00pm - 4:45pm	Seats (Total: 40) CHE 2136

INST Information Studies Fall 2023

INST101 **Bits and Bytes of Computer and Information Sciences**

Restriction: For first time freshmen and first time transfer students; or permission of CMNS-Computer Science department. Cross-listed with: CMSC100. Credit only granted for: CMSC100 or INST101.

Students are introduced to the fields (and disciplines) of computer science and information science within a small classroom setting. They will learn to make a successful transition from high school to the university, while exploring study skills, student success plans and research opportunities.

0101	Jenyia Wilson M 12:00pm - 12:50pm	Seats (Total: 40) CSI 2117
0201	Diana Bridgett F 11:00am - 11:50am	Seats (Total: 40) IRB 2207
0301	Brennan Rudy Th 9:30am - 10:20am	Seats (Total: 40) IRB 2207
0401	Ronaisha Ruth F 10:00am - 10:50am	Seats (Total: 35) CSI 2107

INST104 **Design Across Campus**

What is design, who does it, and how is it done? There is no one answer to this question--it depends on who you ask. The answers to these questions vary across disciplines and across the University campus. This course, designed with modules from contributors in UMD programs including Information Studies, Human-Computer Interaction, Graphic Design, Immersive Media Arts, Journalism, Architecture, Landscape Architecture, Engineering, and Policy, will introduce students to the goals and values, approaches, skills, and practices of diverse fields of design. It will enable students to identify grand challenges in design and serve as a sorting hat to help students find a design practice that matches their own values, approaches, skills and goals.

0101	Katie Shilton Tu 2:00pm - 4:45pm	Seats (Total: 165) ONLINE
0201	Marilyn Iriarte Santacruz MWF 9:00am - 9:50am	Seats (Total: 100) TWS 0320

INST123 **Databases for All**

Restriction: Must not have completed or be currently taking INST327 or BMGT402.

An introduction to relational databases for students with no previous programming experience. Provides a means for students of diverse backgrounds to successfully learn how to store, retrieve, and maintain data in relational databases. Topics include a brief comparison of database systems with an emphasis on relational databases, fundamental relational database concepts, and data types. Includes technical approaches to accessing information stored in relational databases.

0101	Christopher Dempwolf TuTh 12:30pm - 1:20pm F 10:00am - 10:50am	Seats (Total: 50) MMH 1400 ATL 2428	Discussion
0102	Christopher Dempwolf TuTh 12:30pm - 1:20pm F 11:00am - 11:50am	Seats (Total: 50) MMH 1400 ATL 2428	Discussion
0103	Christopher Dempwolf TuTh 12:30pm - 1:20pm F 12:00pm - 12:50pm	Seats (Total: 50) MMH 1400 ATL 2428	Discussion

INST126 **Introduction to Programming for Information Science**

Prerequisite: Math placement of STAT100 or higher. Restriction: Must not have completed INST326; and must be in Information Science, Technology and Information Design, or Social Data Science programs.

An introduction to computer programming for students with very limited or no previous programming experience. Topics include fundamental programming concepts such as variables, data types, assignments, arrays, conditionals, loops, functions, and I/O operations.

0101	Brian Gillikin Class time/details on ELMs	Seats (Total: 75) ONLINE	
0102	Giovanni Luca Ciampaglia TuTh 9:30am - 10:45am	Seats (Total: 60) MCB 1207	
0103	Christopher Dempwolf TuTh 3:30pm - 4:45pm	Seats (Total: 50) MCB 1207	
0104	Scott Jackson MWF 10:00am - 10:50am	Seats (Total: 60) ESJ 2309	
0105	Scott Jackson MWF 2:00pm - 2:50pm	Seats (Total: 60) TWS 1100	

INST151 **Becoming A Social Media Influencer**

Credit only granted for: INST408N or INST151. Formerly: INST408N.

Teaches students how to create, grow, and manage influential social media accounts. Topics will include tools for content creation, analyzing and strategizing with analytics, building community, and defining their niche and approach.

0101	Jennifer Golbeck	Seats (Total: 115)
	Class time/details on ELMs	ONLINE

INST152 **"Fake Checking": Battling Misinformation and Disinformation in the Real World**

Examining the phenomenon of "fake news" using the principles of information literacy, students will develop their skills in locating, analyzing, and evaluating different information sources -- in the classroom, in their personal lives, and in the workplace.

0101	Courtney Douglass	Seats (Total: 150)
	TuTh 3:30pm - 4:45pm	BPS 1250

INST153 **Records Scandals & Data Vandals: Public & Private Sector Controversies Ripped From The Headlines**

Expressly organized around case studies about well-known individuals and organizations involved in scandals and controversies that have generated headlines around the world. It places these events in a larger historical, legal, technological, ethical and societal context. Drawing upon contemporaneous records in a variety of media, as well as presentations from invited speakers representing the greater archival, historical, and public interest communities, the course seeks to deepen students' appreciation of the role that records and information plays in issues going to the heart of government transparency, corporate accountability, and social justice.

0101	Jason Baron	Seats (Total: 115)
	Tu 2:00pm - 3:30pm	ONLINE
	Class time/details on ELMs	ONLINE

INST154 **Apollo at 50**

Examines Apollo mission, one of the greatest engineering accomplishments of all time, in which Neil Armstrong walked on the moon. Since the mission, people have asked: if we can land on the moon, why can't we eliminate poverty? Why can't we cure cancer? Why can't we prevent global warming? Asks what were the social, political, financial, scientific, engineering, operational, and human aspects of the Apollo program that came together to make the moon landings possible?

0101	Dennis Frezzo	Seats (Total: 75)
	TuTh 5:00pm - 6:15pm	ESJ 0215

INST155 **Social Networking**

Credit only granted for: INFM289I or INST155. Formerly: INFM289I.

Introduces methods for analyzing and understanding how people use social media - social networking websites, blogging and microblogging, and other forms of online interaction and content generation - and their societal implications. Introduces students to the science and social science of network analysis. Through real world examples, including analysis of their own social networks, students develop skills for describing and understanding the patterns and usage of services like Facebook, Twitter, YouTube, and others.

0101	David Patrick Class time/details on ELMs	Seats (Total: 150) ONLINE	

INST201 **Introduction to Information Science**

Credit only granted for: INST201 or INST301. Formerly: INST301.

Examining the effects of new information technologies on how we conduct business, interact with friends, and go through our daily lives. Understanding how technical and social factors have influenced the evolution of information society. Evaluating the transformative power of information in education, policy, and entertainment, and the dark side of these changes.

0101	Elia Shahbazi Class time/details on ELMs W 10:00am - 10:50am	Seats (Total: 34) ONLINE HBK 0109	Discussion
0102	Elia Shahbazi Class time/details on ELMs W 11:00am - 11:50am	Seats (Total: 33) ONLINE HBK 0109	Discussion
0103	Elia Shahbazi Class time/details on ELMs W 12:00pm - 12:50pm	Seats (Total: 33) ONLINE HBK 0109	Discussion
0201	Kelly Hoffman MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 34) ONLINE HBK 0105	Discussion
0202	Kelly Hoffman MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 30) ONLINE HBK 0105	Discussion
0203	Kelly Hoffman MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 30) ONLINE HBK 0105	Discussion

0301	Courtney Douglass TuTh 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 34) BPS 1250 HBK 0109	Discussion
0302	Courtney Douglass TuTh 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 33) BPS 1250 HBK 0109	Discussion
0303	Courtney Douglass TuTh 2:00pm - 2:50pm F 4:00pm - 4:50pm	Seats (Total: 33) BPS 1250 HBK 0109	Discussion
0401	Lee Lipscomb Class time/details on ELMs	Seats (Total: 120) ONLINE	
0501	Zach Drake Class time/details on ELMs	Seats (Total: 75) ONLINE	
FC01	Hananya Cohen TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) HBK 0105	

INST204 **Designing Fair Systems**

Credit only granted for: INST208D or INST204. Formerly: INST208D.

Reviews how specific values are built into different automated decision-making systems as an inevitable result of constructing mechanisms meant to produce specific outcomes. These values create differential outcomes for the different people enmeshed in these systems, but both these values and these systems can be changed to support different values and different outcomes. The class serves as an introduction to the emerging field of algorithmic bias that bridges the disciplines of information science, computer science, law, policy, philosophy, sociology, urban planning, and others.

0101	Daniel Greene TuTh 2:00pm - 3:15pm	Seats (Total: 75) ESJ 2212	

INST208Z **Special Topics in Information Studies; Designing Tools for Tinkering and Learning**

Covers special topics in information studies.

What do kids learn when playing with robots? How can video games teach people? Can people really learn a new language using an app? In this course, we will explore how technologies can help people learn. Central to the class will be looking at different types of tools, technologies, and environments, and investigating the various ways to help people learn. As part of the clas students will learn to see the world through the eyes of an educational technology designer and develop ways to create and evaluate technological tools for tinkering and learning. Along the way, we will apply an inclusive user-entered design process to a series of projects, which may include mobile applications, robotics, Internet of Things, toys, and games.

0101	Dennis Frezzo, Yuhan Lin	Seats (Total: 40)
	MW 9:30am - 10:45am	HBK 0302H

INST210 **The Nuts & Bolts of Getting Hired**

Restriction: Must be in the Information Science program, Technology and Information Design program, or Social Data Science program. Credit only granted for: INST208C or INST210. Formerly: INST208C.

Have you thought about finding an internship, getting a job, or starting your career? Perhaps you're confused about how to begin. Welcome to The Nuts and Bolts of Getting Hired, where you'll learn the skills necessary to develop your professional tool kit and obtain the internship or job that can help you build the career you want. This course will help you prepare for the next step in your career by exploring the following topics: Identifying your career goals, mastering the skills of crafting a professional resume, effective interviewing, strategic networking, and professional communication.

0101	Katy Lawley	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

INST227 **Fundamentals of Academic Peer Mentoring in Information Studies**

(Perm req)

Restriction: Permission of the College of Information Studies.

Students will be exposed to scholarship of teaching and learning in support of developing applied skills to support active learning as an iSchool academic peer mentor. Students will learn to effectively coach and support the performance of other people. Guided online and face-to-face participation will culminate in a portfolio of teaching activities and professional development.

0101	Instructor: TBA	Seats (Total: 50)
	M 3:00pm - 3:50pm	ONLINE

INST228 **Academic Peer Mentor Experience in Information Science**

(Perm req)

Students who are participating in instructional activities for undergraduate courses offered by the College of Information Studies, or by faculty members of the College through other units, can take this course to earn course credit for their AMP work.

Contact department for information to register for this course.

INST232C **Health Justice: Investigating the Roles of Information in Preventing & Addressing Health Disparities**

Restriction: Must be a student in the Health Justice Carillon Community.

How do we ensure that every individual has the information they need to live a long and healthy life? In this course, we explore health justice - the conviction and enactment of the idea that every person is morally entitled to a fair and sufficient capability to be healthy. We especially focus on the ways in which information-related factors, such as people's access to health information, their strategies for seeking (or avoiding) health information, and their health and digital health literacy, contribute to health (in)justice. Our goal in this class is to promote health justice for all by identifying information-related solutions that will help to facilitate people's access to health information and improve their abilities to find, assess, and make use of information to optimize their own and others' health.

0101	Beth St Jean	Seats (Total: 45)
	TuTh 9:30am - 10:45am	ESJ 2101

INST301 **Introduction to Information Science**

Restriction: Must be in Information Science program; and restricted to students in the Information Science Program on the Universities at Shady Grove campus. Credit only granted for: INST201 or INST301.

Examining the effects of new information technologies on how we conduct business, interact with friends, and go through our daily lives. Understanding how technical and social factors have influenced the evolution of information society. Evaluating the transformative power of information in education, policy, and entertainment, and the dark side of these changes.

ESG1	Sarah Morris	Seats (Total: 60)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Information Science Program at USG.	

INST309 **Independent Study in Information Science**

(Perm req)

Individual independent study of an aspect of information science, selected according to student interest and need in consultation with a member of the iSchool faculty. Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

INST311 **Information Organization**

Prerequisite: Minimum grade of C- in PSYC100 or SOCY105. Restriction: Must be in Technology and Information Design or Information Science program.

Examines the theories, concepts, and principles of information, information representation and organization, record structures, description, and classification. Topics to be covered in this course include the methods and strategies to develop systems for storage, organization, and retrieval of information in a variety of organizational and institutional settings, as well as policy, ethical, and social implications of these systems.

0101	Ryan O'Grady Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 34) ONLINE HBK 0109	Discussion
0102	Ryan O'Grady Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 33) ONLINE HBK 0109	Discussion
0103	Ryan O'Grady Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 33) ONLINE HBK 0109	Discussion
0104	Katy Lawley TuTh 9:30am - 10:45am	Seats (Total: 75) CCC 1205	
0105	Galina Reitz MWF 2:00pm - 2:50pm	Seats (Total: 75) BPS 1243	
0201	Ryan O'Grady Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 34) ONLINE HBK 0105	Discussion
0202	Ryan O'Grady Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 33) ONLINE HBK 0105	Discussion
0203	Ryan O'Grady Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 33) ONLINE HBK 0105	Discussion
ESG1	Galina Reitz W 9:30am - 12:15pm	Seats (Total: 60) BLD4 4335	
	Restricted to students in the Information Science Program at USG.		

INST314 **Statistics for Information Science**

Prerequisite: Minimum grade of C- in INST126 or GEOG276; and minimum grade of C- in STAT100, and MATH115 (or higher). Restriction: Must be in Information Science or Social Data Science program.

Basic concepts in statistics including measure construction, data exploration, hypothesis development, hypothesis testing, pattern identification, and statistical analysis. The course also provides an overview of commonly used data manipulation and analytic tools. Through homework assignments, projects, and in-class activities, you will practice working with these techniques and tools to create information resources that can be used in individual and organizational decision-making and problem-solving.

0101	Samantha Kemper TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 39) ESJ 2208 HBK 0109	Discussion
0102	Samantha Kemper TuTh 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 38) ESJ 2208 HBK 0115	Discussion
0103	Samantha Kemper TuTh 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 38) ESJ 2208 HBK 0115	Discussion
0104	Samantha Kemper TuTh 4:00pm - 5:15pm	Seats (Total: 60) CSI 3117	
0201	Scott Jackson MW 2:00pm - 2:50pm Th 2:00pm - 2:50pm	Seats (Total: 38) SHM 2102 HBK 0115	Discussion
0202	Scott Jackson MW 2:00pm - 2:50pm Th 3:00pm - 3:50pm	Seats (Total: 38) SHM 2102 HBK 0115	Discussion
0203	Scott Jackson MW 2:00pm - 2:50pm Th 4:00pm - 4:50pm	Seats (Total: 37) SHM 2102 HBK 0115	Discussion
0204	Scott Jackson MW 2:00pm - 2:50pm Th 5:00pm - 5:50pm	Seats (Total: 37) SHM 2102 HBK 0115	Discussion
ESG1	Parisa Meisami Tu 9:30am - 11:00am Class time/details on ELMs	Seats (Total: 60) BLD3 2230 ONLINE	
	Restricted to students in the Information Science Program at USG.		

INST326 Object-Oriented Programming for Information Science

Prerequisite: Minimum grade of C- in INST126 or GEOG276. Restriction: Must be in Information Science or Social Data Science program.

An introduction to programming, emphasizing understanding and implementation of applications using object-oriented techniques. Topics to be covered include program design and testing as well as implementation of programs.

Students who wish to register should contact the College of Information Studies.

0101	Aric Bills MW 9:30am - 10:45am	Seats (Total: 70) ATL 1113
0102	Aric Bills MWF 1:00pm - 1:50pm	Seats (Total: 50) PLS 1130
0103	Matthew Patrick Class time/details on ELMs	Seats (Total: 70) ONLINE
0104	Gabriel Cruz Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 40) HBK 0302H PHY 1204
0105	Gabriel Cruz Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 40) HBK 0302H ATL 1114
0106	Matthew Patrick Class time/details on ELMs	Seats (Total: 75) ONLINE
ESG1	William Farmer Th 9:30am - 11:00am Class time/details on ELMs *Restricted to students in the Information Science Program at USG.*	Seats (Total: 60) BLD4 4335 ONLINE

INST327 **Database Design and Modeling**

Prerequisite: Minimum grade of C- in INST126 or GEOG276. Restriction: Must be in Information Science or Social Data Science program. Credit only granted for: INST327 or BMGT402.

Introduction to databases, the relational model, entity-relationship diagrams, user-oriented database design and normalization, and Structured Query Language (SQL). Through labs, tests, and a project, students develop both theoretical and practical knowledge of relational database systems.

Students who wish to register should contact the College of Information Studies.

0101	Vedat Diker, Pamela Duffy W 10:00am - 10:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 40) EGR 1202 ONLINE HBK 0302H	 Discussion
0102	Pamela Duffy, Vedat Diker W 10:00am - 10:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 40) EGR 1202 ONLINE HBK 0302H	 Discussion
0103	Pamela Duffy, Vedat Diker W 10:00am - 10:50am Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 40) EGR 1202 ONLINE HBK 0302H	 Discussion
0201	Pamela Duffy, Vedat Diker Th 11:00am - 11:50am Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 34) KEB 1110 ONLINE HBK 0302H	 Discussion
0202	Pamela Duffy, Vedat Diker Th 11:00am - 11:50am Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 33) KEB 1110 ONLINE HBK 0302H	 Discussion
0203	Pamela Duffy, Vedat Diker Th 11:00am - 11:50am Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 33) KEB 1110 ONLINE HBK 0302H	 Discussion
0301	Iskander Lou W 11:00am - 11:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 34) PLS 1140 ONLINE BPS 1228	 Discussion
0302	Iskander Lou W 11:00am - 11:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 33) PLS 1140 ONLINE BPS 1228	 Discussion

0303	Iskander Lou W 11:00am - 11:50am Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 33) PLS 1140 ONLINE BPS 1228	 Discussion
0401	Devanshi Shah Tu 5:00pm - 5:50pm Th 5:00pm - 5:50pm	Seats (Total: 100) ONLINE ONLINE	 Lab

INST335 **Organizations, Management and Teamwork**

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in PSYC100. Restriction: Must be in Information Science program.

Examines principles, methods and types of leadership with an emphasis on goal setting, motivation, problem solving, and conflict resolution. Examines principles of developing teams and managing team projects through planning and execution, including estimating costs, managing risks, scheduling, staff and resource allocation, communication, tracking, and control. Trains students to recognize and capitalize on opportunities to use information to increase efficiency, improve performance, and support innovation within teams and organizations. Focuses on strategic use of emerging technologies and new information resources to execute information-enabled change.

Students who wish to register should contact the College of Information Studies.

0101	P Kshetry Class time/details on ELMs Tu 8:00am - 8:50am	Seats (Total: 33) ONLINE HBK 0115	 Discussion
0102	P Kshetry Class time/details on ELMs Tu 9:30am - 10:20am	Seats (Total: 32) ONLINE HBK 0115	 Discussion
0103	P Kshetry Class time/details on ELMs Tu 11:00am - 11:50am	Seats (Total: 32) ONLINE HBK 0115	 Discussion
0104	P Kshetry Class time/details on ELMs Tu 12:30pm - 1:20pm	Seats (Total: 33) ONLINE HBK 0115	 Discussion
0201	P Kshetry Class time/details on ELMs Th 8:00am - 8:50am	Seats (Total: 34) ONLINE HBK 0115	 Discussion

0202	P Kshetry Class time/details on ELMs Th 9:30am - 10:20am	Seats (Total: 33) ONLINE HBK 0115	Discussion
0203	P Kshetry Class time/details on ELMs Th 11:00am - 11:50am	Seats (Total: 33) ONLINE HBK 0115	Discussion
0204	P Kshetry Class time/details on ELMs Th 12:30pm - 1:20pm	Seats (Total: 30) ONLINE HBK 0115	Discussion
0301	TJ Rainsford TuTh 2:00pm - 3:15pm	Seats (Total: 75) KEB 1110	
0401	Phillip Thompkins Class time/details on ELMs	Seats (Total: 75) ONLINE	
ESG1	Galina Reitz M 9:30am - 12:15pm *Restricted to students in the Information Science Program at USG.*	Seats (Total: 60) BLD4 4335	

INST341 **Introduction to Digital Curation**

Prerequisite: Must have completed with a C- or higher, or be concurrently enrolled in INST311. Restriction: Must be in Technology and Information Design or Information Science programs.

Explores various dimensions and contexts for digital curation, which includes all activities involving the management, representation and preservation of both born-digital and digitized information. Focuses on opportunities, challenges and demands of every-increasing digital data and networked information infrastructure.

0101	Andrew Casertano TuTh 3:30pm - 4:45pm	Seats (Total: 50) TYD 1118	

INST346 **Technologies, Infrastructure and Architecture**

(Perm req)

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- in INST326 and INST327. Restriction: Must be in the Information Science program; and must have earned a minimum of 60 credits. Credit only granted for: INST346 or BMGT405.

Examines the basic concepts of computer hardware, systems software, networking, client/server architectures, cloud computing, distributed systems, and high performance computing as applied to information rich domains. Technology and architectures will be discussed within the contexts of solving social issues, supportingscience, and conducting business operations. Current computing topics such as web environments, IoT, security, management, and policy will also be reviewed.

Students who wish to register should contact the College of Information Studies.

0101	Donal Heidenblad TuTh 8:00am - 9:15am	Seats (Total: 40) HBK 0302H
0102	Dennis Frezzo Class time/details on ELMs	Seats (Total: 100) ONLINE
0103	Donal Heidenblad TuTh 9:30am - 10:45am	Seats (Total: 40) HBK 0302H
0104	Dennis Frezzo MW 8:00am - 9:15am	Seats (Total: 40) HBK 0302H
0105	Dennis Frezzo M 1:00pm - 2:15pm Th 12:30pm - 1:45pm	Seats (Total: 40) HBK 0302J HBK 0302J
ESG1	Dennis Frezzo Class time/details on ELMs *Restricted to students in the Information Science Program at USG.*	Seats (Total: 97) ONLINE

INST352 **Information User Needs and Assessment**

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- in INST311. Restriction: Must be in Technology and Information Design or Information Science programs.

Focuses on use of information by individuals, including the theories, concepts, and principles of information, information behavior and mental models. Methods for determining information behavior and user needs, including accessibility issues will be examined and strategies for using information technology to support individual users and their specific needs will be explored.

0101	Amelia Gibson W 2:00pm - 2:50pm MF 2:00pm - 2:50pm	Seats (Total: 60) ATL 2324 ONLINE
0102	Carol Boston MWF 12:00pm - 12:50pm	Seats (Total: 50) BPS 1236

0103	Miranda Downey TuTh 2:00pm - 3:15pm	Seats (Total: 60) CHE 2108
0104	Amanda Lazar Class time/details on ELMs	Seats (Total: 60) ONLINE
0201	Ana Ndumu TuTh 2:00pm - 3:15pm	Seats (Total: 150) ONLINE

INST354 **Decision-Making for Information Science**

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- in INST314 and PSYC100. Restriction: Must be in the Information Science program.

Examines the use of information in organizational and individual decision-making, including the roles of information professionals and information systems in informed decision-making through techniques such as data analysis and regression, optimization, sensitivity analysis, decision trees, risk analysis and business simulation models.

Students who wish to register should contact the College of Information Studies.

0101	Abdirisak Mohamed Class time/details on ELMs	Seats (Total: 80) ONLINE
0102	Abdirisak Mohamed Class time/details on ELMs	Seats (Total: 75) ONLINE
0103	Nekabari Sigalo, Srikanth Parvathala MWF 1:00pm - 1:50pm	Seats (Total: 50) SYM 0200

INST362 **User-Centered Design**

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- from PSYC100 or SOCY105; and minimum grade of C- in INST326 and STAT100. Restriction: Must be in the Information Science program or Technology and Information Design program; and must have earned a minimum of 60 credits.

Introduction to human-computer interaction (HCI), with a focus on how HCI connects psychology, information systems, computer science, and human factors. User-centered design and user interface implementation methods discussed include identifying user needs, understanding user behaviors, envisioning interfaces, and utilizing prototyping tools, with an emphasis on incorporating people in the design process from initial field observations to summative usability testing.

Students who wish to register should contact the College of Information Studies.

0101	Stacy Surla MW 5:00pm - 6:15pm	Seats (Total: 70) ONLINE
0102	Gabrielle Trilling MW 9:00am - 10:15am	Seats (Total: 40) HBK 0302J
0103	Elizabeth Bonsignore TuTh 9:30am - 10:45am	Seats (Total: 40) HBK 0302J
0104	Stephanie Valencia Valencia MTh 11:00am - 12:15pm	Seats (Total: 40) HBK 0302J
0105	Ciara Fabian TuTh 8:00am - 9:15am	Seats (Total: 40) HBK 0302J
0106	Tamara Clegg TuTh 12:30pm - 1:45pm	Seats (Total: 50) ARC 1103
0107	Natalie Smith W 3:00pm - 5:45pm	Seats (Total: 50) ONLINE

INST363 **Fundamentals of Technology Innovation**

Restriction: Must be in the Technology Innovation Leadership Minor; or permission of INFO-College of Information Studies. Credit only granted for: INST408T or INST363. Formerly: INST408T.

Introduces students to the fundamentals of technology innovation, and how leaders approach innovation in the information science field. The course explores approaches and perspectives on how to develop an individual's capabilities to be better at leading others in an innovative environment. Combining theory and practice, students will be introduced to problem solving and explore ways to become an exceptional innovation leader.

ESG1	Francesca Polito Class time/details on ELMs	Seats (Total: 40) ONLINE
	Restricted to students in the Information Science Program and the Information Risk Management, Ethics, and Privacy minor at USG.	

INST364 **Human-Centered Cybersecurity**

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- in INST327, STAT100, MATH115, and PSYC100. Restriction: Must be in the Information Science program; or must be in the Information Risk Management, Ethics, and Privacy Minor.

Cybersecurity is fundamentally a problem of human interaction with technology, but its technical challenges are better understood than its human challenges. This course is designed to give you an overview of human interactions with cybersecurity technology, from users to system designers. Using the information gleaned in this course, you should be able to make better predictions about how people react to cybersecurity policies and tools, and how those reactions shape organizational behavior. The earlier part of the course focuses on explanations for behavior, while the later parts of the course focus more on the development and evaluation of tools for assisting people in cybersecurity.

0101	Susan Campbell TuTh 3:30pm - 4:45pm	Seats (Total: 50) TWS 1100
ESG1	Padric Mylod Th 10:30am - 12:15pm Class time/details on ELMs *Restricted to students in the Information Science Program at USG.*	Seats (Total: 50) ONLINE ONLINE

INST366 **Privacy, Security and Ethics for Big Data**

Prerequisite: Minimum grade of C- from INST126 or GEOG276; and minimum grade of C- in STAT100; and minimum grade of C- in one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201,GEOG202, GVPT170, PSYC100, SOCY100, or SOCY105). Restriction: Must be in the Information Science, Technology and Information Design, or Social Data Science programs; or must be in the Information Risk Management, Ethics, and Privacy Minor.

Evaluates major privacy and security questions raised by big data, Internet of things (IoT), wearables, ubiquitous sensing, social sharing platforms, and other AI-driven systems. Covers history of research ethics and considers how ethical frameworks can and should be applied to digital data.

0101	Joseph Kelly MW 11:00am - 12:15pm	Seats (Total: 50) BPS 1243
0102	Alla Levin TuTh 2:00pm - 3:15pm	Seats (Total: 50) ASY 2309

INST367 **Prototyping and Development Studio**

Prerequisite: Minimum grade of C- in INST380. Restriction: Must be in the Technology and Information Design program. Credit only granted for: INST398A or INST367. Formerly: INST398A.

Covers interaction design--the process of defining products and the broad services built around them--and user experience research--how you determine what to design and how successful your design is. When interacting with systems, people build expectations and mental models of how things work, based upon their previous experience with similar products or processes, and the successful or unsuccessful nature of their interactions determines the success of your design. This course is about how to design for digital interactions that will resonate with your audiences (how the features and functions of a product get translated into something people find usable, useful, and desirable), and the research that goes on throughout that process (from contextual inquiry to evaluating the final product), with a particular emphasis on prototyping and iteration.

0101	Anat Szendro Sevilla W 11:00am - 1:45pm	Seats (Total: 35) HBK 0302H	

INST377 **Dynamic Web Applications**

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301, or BSOS233); and minimum grade of C- in INST327, STAT100, and MATH115 (or higher). Restriction: Restricted to Information Science and Social Data Science. Credit only granted for: INST377 or BMGT406.

An exploration of the basic methods and tools for developing dynamic, database-driven websites, including acquiring, installing, and running web servers, database servers, and connectability applications.

Students who wish to register should contact the College of Information Studies.

0101	Anmol Dash Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 30) ONLINE HBK 0302J	Discussion
0102	Anmol Dash Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 30) ONLINE HBK 0302J	Discussion
0103	Anmol Dash Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 30) ONLINE HBK 0302J	Discussion
0104	Anmol Dash Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 30) ONLINE HBK 0302J	Discussion
0105	Anmol Dash Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 30) ONLINE HBK 0302J	Discussion

ESG1	Anmol Dash	Seats (Total: 40)
	Tu 9:30am - 11:00am	ONLINE
	Class time/details on ELMs	ONLINE
	Restricted to students in the Information Science Program at USG.	

INST380 **Technology and Information Design: Do Good Now**

Prerequisite: Minimum grade of C- in INST201, INST126, STAT100; minimum grade of C- from (PSYC100, SOCY105). Restriction: Must be in the Technology and Information Design program. Credit only granted for: ARHU380, BSOS388B, PLCY388D, or PLCY380.

Climate change. Poverty. Racism. Pressing social issues are big, complex, and difficult. They can feel overwhelming to understand and impossible to address. You might care deeply about an issue, and want to make a difference, but don't know where to start. Sometimes you might not even try. This course will equip and empower you to delve deep into understanding a social issue of your choosing. Through course materials and activities, you'll try out your changemaker muscles and mindsets. Our goal is that this course will empower you to be an informed, engaged citizen who contributes to your community with and beyond your profession. Along the way, we'll address questions like, "What is social change?" and "What happens when our actions have unintended consequences?" We'll talk about the importance of understanding, empathy, agency, and community, and reflect on how these concepts relate to us as individuals.

0101	Elizabeth Bonsignore	Seats (Total: 20)
	MW 5:00pm - 6:15pm	PLS 1172

INST388B **"Maker Movement" Approach to Computing; Wunderkammer**

Informed by the "maker movement," this course allows students to merge their personal interests and hobbies with computing. This course is great for students new to computing who want to explore real world applications, or for more advanced students wanting an opportunity to engage in depth with a niche topic.

This 1-credit course explores the creation of Wunderkammers, a 16th century room or space for oddities, curiosities, and more. We will approach this from a modern perspective, learning about and using objects, technology and interactivity, culminating in a public, experiential presentation. Students will learn all the tools needed to make their imaginative rooms come to life: projection, physical computation, fabrication and installation techniques.

0101	Jason Aston	Seats (Total: 20)
	Meets August 28, 2023 - October 17, 2023	
	M 2:00pm - 4:00pm	TWS 1313

INST388C **"Maker Movement" Approach to Computing; Transmedia Storytelling**

Informed by the "maker movement," this course allows students to merge their personal interests and hobbies with computing. This course is great for students new to computing who want to explore real world applications, or for more advanced students wanting an opportunity to engage in depth with a niche topic.

Students will learn about transmedia storytelling which is a process where integral elements of a fiction get dispersed systematically across multiple delivery channels for the purpose of creating a unified and coordinated entertainment experience. How are these interactive stories conceived of? Who decides which media they traverse, what technologies they use, which audiences to target and how? How do transmedia designers decide which aspects or story bits are interactive and which are like "cutscenes" that provide background and exposition? This practicum will introduce students to the social, technological, and creative dimensions of interactive transmedia experiences (story worlds, alternate reality games, various book formats).

0101	Elizabeth Bonsignore, Jason Aston **Meets October 18, 2023 - December 11, 2023** M 2:00pm - 4:00pm	Seats (Total: 20) TWS 1313

INST398G **Special Topics in Information Studies; Leadership in Learning Communities**

Selected topics in information studies.

0101	Donal Heidenblad Contact instructor or department for details.	Seats (Total: 20)

INST398K **Special Topics in Information Studies; Team Management for Information Science**

Selected topics in information studies.

Prerequisite: Minimum grade of C- in STAT100 or MATH115 or higher; and minimum grade of C- in INST126 or GEOG276; and minimum grade of C- in (PSYC100, SOCY105, or BSOS233) and a minimum of C- in INST335. This upper-level seminar for undergraduates delves into the management of teams, including cross-cultural and diverse teams, using information science examples. You will gain a better understanding of team characteristics (e.g. diversity) and team processes (e.g. conflicts) that affect outcomes (e.g. productivity, satisfaction).

0101	Susannah Paletz W 2:00pm - 4:50pm	Seats (Total: 40) ONLINE

INST402 **Designing Patient-Centered Technologies**

Prerequisite: Minimum grade of C- from INST362 or INST367. Restriction: Must be in Technology and Information Design or Information Science programs.

Companies have created a vast array of apps and other technologies for understanding managing personal health and wellness, but many of them have been created with little understanding of audience needs or potential ethical issues. Course introduces students to the unique challenges of studying people's health and wellness needs as well as designing and evaluating technologies to meet those needs.

0101	Patricia Bunnell	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INST406 **Cross Disciplinary Communication Lab**

Prerequisite: Minimum grade of C- in INST380; and a minimum grade of C- in Professional Writing General Education requirement. Restriction: Must be in the Technology and Information Design program.

Explores the world of communicating the ideas behind the things we make. In design, the product tends to be the prize: a manifestation of experience, sensibilities, and observations. But products do not always articulate a complete picture of what they are and how they came to be. Communication--speaking, writing, depicting, presenting to various audiences--is an under-leveraged component of design, connecting the product with emotion, process, context, and most importantly, the audience.

0101	Jason Aston	Seats (Total: 40)
	Tu 3:00pm - 5:45pm	HBK 0109

INST407 **Leading and Sustaining a Culture of Innovation**

Restriction: Must be in Technology Innovation Leadership minor; or permission of INFO-College of Information Studies. Credit only granted for: INST408L or INST407. Formerly: INST408L.

Successful leaders know that the key to value creation and sustained growth lies in innovation -- continuously seeking opportunities to create value whether by launching new products and services, entering new markets, or rethinking key processes. This course will focus on the most efficient leadership strategies, change management, team motivation, technology team management for information management within organizations. We will examine some of the best ways to foster innovative behaviors within a team and organization. Students will engage with a course-long culture change challenge.

ESG1	Natalie Smith	Seats (Total: 40)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Information Science Program and the Information Risk Management, Ethics, and Privacy minor at USG.	

INST408I **Special Topics in Information Science; Introduction to Cyber Intelligence**

Selected topics in information studies.

0101	Kathleen Moore	Seats (Total: 40)	
	MW 6:00pm - 6:50pm Class time/details on ELMs	ONLINE ONLINE	Discussion

INST408M **Special Topics in Information Science; Managing with Data and Simulations**

Selected topics in information studies.

0101	Pamela Duffy, Vedat Diker	Seats (Total: 30)	
	W 11:00am - 1:45pm	HBK 0302J	

INST408V **Special Topics in Information Science; Visual Design Studio**

Selected topics in information studies.

This is a studio, project-based course primarily aimed at developing foundational, visual language and skills related User Experience Design. The course will offer students room to explore U/X from varied perspectives and design methodologies while introducing them to modern platforms and processes. Students will learn the entire U/X workflow as well as understand where U/X fits in the industry pipeline.

0101	Anat Szendro Sevilla	Seats (Total: 25)	
	W 2:00pm - 4:45pm	HBK 0302H	

INST408Z **Special Topics in Information Science; Creative Coding**

Selected topics in information studies.

This course studies computational and data-driven tools for writing poetry and fiction. The focus is on experimental writing with computers, including digital fiction and poetry. Students will also explore novel forms of collaboration with the computer, such as using an AI-generated passage of text as the seed for a more conventionally authored short story; writing a poem that contains lines and stanzas scored either ridiculously high or low by sentiment algorithms; using paper rather than screens as a medium for computational display.

0101	Kari Kraus	Seats (Total: 20)	
	Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	CHE 2116 ONLINE	

INST414 **Data Science Techniques**

Prerequisite: Minimum grade of C- in MATH115 (or higher) and STAT100; and a minimum grade of C- from INST126 or GEOG276; and a minimum grade of C- from one of the following (INST201, INST301, or BSOS233); and a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from BSOS233 or INST314. Recommended: Minimum C- in MATH140 and (INST326, BSOS326, or GEOG376). Restriction: Must be in Information Science or Social Data Science program.

An exploration of how to extract insights from large-scale datasets. The course will cover the complete analytical funnel from data extraction and cleaning to data analysis and insights interpretation and visualization. The data analysis component will focus on techniques in both supervised and unsupervised learning to extract information from datasets. Topics will include clustering, classification, and regression techniques. Through homework assignments, a project, exams and in-class activities, students will practice working with these techniques and tools to extract relevant information from structured and unstructured data.

0101	Zubin Jelveh TuTh 8:00am - 9:15am	Seats (Total: 50) IRB 1207
0102	Cody Buntain MW 5:30pm - 6:45pm	Seats (Total: 50) IRB 1207
0103	Wei Ai Th 2:00pm - 4:45pm	Seats (Total: 50) ATL 1113

INST441 **Information Ethics and Policy**

Prerequisite: Minimum grade of C- from INST341 or INST380. Restriction: Must be in the Information Science program or Technology and Information Design program.

Explores via case studies the legal, ethical, and technological challenges in developing and implementing policies for managing digital assets and information. Emphasizes access questions pertinent to managing sensitive information and the roles and responsibilities of information professionals.

0101	Chad Doran Class time/details on ELMs	Seats (Total: 60) ONLINE

INST442 **Digital Curation Across Disciplines**

Prerequisite: Must have completed with a C- or higher, or be concurrently enrolled in INST341 or INST380. Restriction: Must be in the Information Science program or Technology and Information Design program.

Examines how to apply digital curation principles, tools, and strategies in managing diverse data collections and digital information in different disciplinary settings. Explores differences among data curation principles and practices across diverse settings, ranging from scientific organizations (such as business and academic research laboratories and computational science settings), to humanities-based institutions (such as cultural heritage organizations) to social science-based institutions (such as data-intensive professional environments).

0101	Katrina Fenlon TuTh 11:00am - 12:15pm	Seats (Total: 50) BPS 1236

INST447 **Data Sources and Manipulation**

Prerequisite: Minimum grade of C- in STAT100 and INST327; and a minimum grade of C- from one of the following (INST201, INST301, BSOS233); and a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from BSOS233 or INST314; and a minimum grade of C- from one of the following (BSOS331, GEOG273, or INST326). Restriction: Must be in Information Science or Social Data Science program.

Examines approaches to locating, acquiring, manipulating, and disseminating data. Imperfection, biases, and other problems in data are examined, and methods for identifying and correcting such problems are introduced. The course covers other topics such as automated collection of large data sets, and extracting, transforming, and reformatting a variety of data and file types.

0101	Giovanni Luca Ciampaglia TuTh 12:30pm - 1:45pm	Seats (Total: 60) CCC 1205
0102	Nekabari Sigalo Class time/details on ELMs	Seats (Total: 50) ONLINE

INST451 **Consumer Health Informatics**

Prerequisite: Minimum grade of C- in INST126, INST201 or STAT100; and minimum grade of C- from PSYC100 or SOCY105. Restriction: Must be in the Information Science program or Technology and Information Design program. Credit only granted for: INST408A or INST451. Formerly: INST408A.

Explores people's health-related information needs and whether, how, and why people seek out and use (or do not seek out and use) health information and the types of health information they find useful. We will also cover the important and interrelated topics of information avoidance, health behaviors, health literacy, digital health literacy, doctor-patient communication, and patient-to-patient communication through support groups and online communities. Throughout the course, we will also focus on the important concept of health justice - a world in which everyone has an adequate and equitable capability to be healthy.

0101	Beth St Jean M 2:00pm - 4:45pm	Seats (Total: 30) HBK 0302H

INST453 **Project Management for Information Science**

Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453. Formerly: INST408O.

Provides a comprehensive overview of project management, focusing on the needs of information resources (IR). The course covers the concepts and techniques for planning and execution of projects including developing work breakdown structure, estimating costs, managing risks, scheduling, staff and resource allocation, team building, communication, tracking, control, and other aspects of successful project completion.

ESG1	Arjav Shah	Seats (Total: 50)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Information Science Program at USG.	

INST455 **Information Assurance and Compliance**

Credit only granted for: INST408U or INST455. Formerly: INST408U.

Examines the protection of organizational data, personalized information, intellectual property and the associated assurance of the data's transfer, storage and communication. Students will understand how to manage these concerns and respond to both emergent and existing threats within the information domain. We will look at the key principles of Information Assurance, compliance and best practices in the real world.

ESG1	Michael Prakhye	Seats (Total: 50)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Information Science Program and the Information Risk Management, Ethics, and Privacy minor at USG.	

INST461 **Emerging Technologies and Risk Management**

Credit only granted for: INST408Z or INST461. Formerly: INST408Z.

Focuses on how people and companies can achieve various tangible and intangible benefits and assess risk in using and incorporating emerging technologies (i.e. mobile devices, social media, robotic process automation, 3-D printing, cloud computing, blockchain technologies, artificial intelligence, etc.) into the activities and operations of a company.

ESG1	Arjav Shah	Seats (Total: 50)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Information Science Program and the Information Risk Management, Ethics, and Privacy minor at USG.	

INST462 **Introduction to Data Visualization**

Prerequisite: Minimum grade of C- in STAT100; minimum grade of a C- from one of the following (INST201, INST301, or BSOS233); minimum grade of C- in INST126 or GEOG276; a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, SOCY100, or SOCY105); and a minimum grade of C- from BSOS233 or INST314. Restriction: Must be in Information Science or Social Data Science program.

Exploration of the theories, methods, and techniques of visualization of information, including the effects of human perception, the aesthetics of information design, the mechanics of visual display, and the semiotics of iconography.

Students who wish to register should contact the College of Information Studies.

0101	Jesse Klein TuTh 9:30am - 10:45am	Seats (Total: 50) BPS 1236
0102	Jennifer Golbeck Class time/details on ELMs	Seats (Total: 100) ONLINE

INST464 **Decision Making for Cybersecurity**

Prerequisite: Must have earned a minimum grade of C- in INST201, INST126, MATH115, PSYC100, and INST364. Restriction: Must be in Information Science program. Credit only granted for: INST408W or INST464. Formerly: INST408W.

Discusses human and organizational decision making from a variety of perspectives. Applies different risk assessment and decision making frameworks that are relevant to personal and organization cybersecurity, with a focus on the quantitative Factor Analysis of Information Risk (FAIR) model. Considers monetary, social and societal costs of cybersecurity decisions. Considers a range of questions relating to cybersecurity, from whether to install a game on a smartphone to how to allocate scarce information security resources in an organization.

0101	Alla Levin Class time/details on ELMs	Seats (Total: 50) ONLINE

INST466 **Technology, Culture, and Society**

Prerequisite: Minimum grade of C- in INST201 or INST301; and minimum grade of C- in PSYC100 or SOCY105. Restriction: Must be in the Information Science program or Technology and Information Design program.

Individual, cultural, and societal outcomes associated with development of information & communication technologies (ICTs), including pro- and anti-social factors. Unpacking how gender, race, ethnicity, sexual orientation, disabilities, and political affiliations affect consumption and production of online experiences. Unpacking how structures of dominance, power and privilege manifest at individual, institutional and cultural levels.

0101	Jesse Klein TuTh 11:00am - 12:15pm	Seats (Total: 40) HBK 0302H
0102	Yue Xin TuTh 2:00pm - 3:15pm	Seats (Total: 60) SPH 1303
0103	Amelia Gibson Class time/details on ELMs	Seats (Total: 60) ONLINE

INST490 **Integrated Capstone for Information Science**

(Perm req)

Prerequisite: Minimum grade of C- in INST311, INST314, INST326, INST327, INST335, INST346, INST352, and INST362. Restriction: Must be in Information Science program; and must have earned a minimum of 90 credits; and permission of INFO-College of Information Studies.

The capstone provides a platform for Information Science students where they can apply a subset of the concepts, methods, and tools they learn as part of the Information Science program to addressing an information problem or fulfilling an information need.

0101	Andrew Fellows TuTh 12:30pm - 1:45pm	Seats (Total: 40) HBK 0302H
0102	Mary Ann Francis F 2:00pm - 4:45pm	Seats (Total: 40) HBK 0302J
0103	Jesse Klein W 2:00pm - 4:45pm	Seats (Total: 40) HBK 0302J
0104	William Kules Th 3:00pm - 5:45pm	Seats (Total: 40) HBK 0302J
0105	TJ Rainsford W 5:00pm - 7:45pm	Seats (Total: 40) ONLINE

INST600 **Foundations for Librarians and Information Professionals**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC791 or INST600. Formerly: LBSC791.

An introduction to the field of library and information science (LIS), its history, and future direction that provides students with an understanding and appreciation of the nature and functions of the profession(s) they have entered. The focus is on core concepts underlying the LIS discipline, with particular emphasis on professional ethics/values, diversity, equity, inclusion and accessibility (DEIA), and the ways in which technology has shaped and continues to shape the field.

IM01	Ryan O'Grady M 6:00pm - 8:45pm	Seats (Total: 40) HBK 0115
IM02	Ursula Gorham-Oscilowski Class time/details on ELMs	Seats (Total: 40) ONLINE

INST604 **Introduction to Archives and Digital Curation**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC604 or LBSC605.

Overview of the principles, practices, and applications in the archival and digital curation fields.

IM01	Diana Marsh Class time/details on ELMs	Seats (Total: 40) ONLINE
IM02	Richard Marciano Tu 2:00pm - 4:45pm	Seats (Total: 20) HBK 0108

INST607 **Government Information**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INFM718E, INST607, or LBSC708E. Formerly: INFM718E and LBSC708E.

An introduction to the nature and scope of government information (federal, state, and local). Tracing the ongoing efforts of government agencies to offer information, services, and resources online, this course also examines the nature and current impact of new technologies on participatory democracy. More specifically, the course explores information and communication technologies designed to make government more open and transparent; the design, implementation, and evaluation of new government and governance mechanisms, including through the use of social media and AI; the role of legal authorities and information institutions such as libraries in supporting access to government information; and the development and implementation of selected public facing online tools (e.g., data visualization, crowd-sourcing, etc.).

IM01	Jason Baron Class time/details on ELMs	Seats (Total: 30) ONLINE

INST608Q **Special Topics in Information Studies; Consumer Health Informatics**

Covers special topics in information studies.

In this course, we investigate Consumer Health Informatics and Information Behavior, focusing most heavily on their intersection - Consumer Health Information Behavior. We explore people's health-related information needs and whether, how, and why people seek out and use (or do not seek out and use) health information. We also look at information avoidance, health behaviors, health literacy, digital health literacy, doctor-patient communication, and patient- to-patient communication. Throughout the course, we emphasize the importance of health justice - a world in which everyone has an adequate and equitable capability to be healthy. We will identify populations that experience social injustice and explore information-related factors that contribute to the health inequities they face and the resulting consequences. Our central aim in the course is to conceive of ways to facilitate people's access to health information and their health-related information seeking, and to promote health justice for all.

IM01	Beth St Jean M 2:00pm - 4:45pm	Seats (Total: 10) HBK 0302H

INST608R **Special Topics in Information Studies; Computer-Supported Cooperative Work**

Covers special topics in information studies.

Cross-listed with INST878O. Credit only granted for INST878O or INST608R.

0101	Instructor: TBA	Seats (Total: 15)

INST610 **Information Ethics**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INFM718Q, INST610, or LBSC708I. Formerly: INFM718Q and LBSC708I.

Investigation of the diverse range of ethical challenges facing society in the information age. Ethical theories, including non-Western and feminist theories. Application of theories to information ethics issues.

IM01	Galina Reitz	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST611 **Privacy and Security in a Networked World**

Restriction: Permission of INFO-College of Information Studies.

Evolving conceptualization of privacy and security issues in light of technological developments in the 21st century. Analysis of legal, ethical, design, and socially constructed challenges that organizations and individuals face when developing privacy and security solutions.

IM01	Jessica Vitak	Seats (Total: 30)
	W 2:00pm - 4:45pm	ESJ B0320

INST613 **Information and Human Rights**

Restriction: Permission of INFO-College of Information Studies.

An examination of information as a human right, including topics: social, cultural, economic, legal, and political forces shaping information rights; the impact of information rights on information professions, standards, and cultural institutions; and information rights and disadvantaged populations.

IM01	Paul Jaeger	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST615 **Information Professionals and the Law**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC735 OR INST615. Formerly: LBSC735.

An exploration of the interrelated issues of the provision of and information literacy about legal information by information organizations and the impacts of legal issues, such as privacy and filtering, on the practice of information organizations that serve the public.

IM01	John Galliano	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST620 **Diverse Populations, Inclusion, and Information**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC620 OR INST620. Formerly: LBSC620.

Importance of equality of information access. Social, political, and technological barriers to information. Information needs of diverse and underrepresented populations. Principles of inclusive information services.

IM01	Renee Hill	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST627 **Data Analytics for Information Professionals**

Restriction: Permission of INFO-College of Information Studies.

Skills and knowledge needed to craft datasets, perform quantitative and qualitative analyses, and develop information resources that bridge the gap between raw data and decision makers' needs.

IM01	Zach Drake	Seats (Total: 40)
	Tu 6:00pm - 8:45pm	HBK 0109
IM02	Naeemul Hassan	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST630 **Introduction to Programming for the Information Professional**

Restriction: Permission of INFO-College of Information Studies.

An introduction to computer programming intended for students with no previous programming experience. Topics include fundamentals of programming and current trends in user interface implementation that are relevant to information professionals.

IM01	Alex Leitch	Seats (Total: 30)
	Th 2:00pm - 4:45pm	HBK 0302H

INST631 **Fundamentals of Human-Computer Interaction**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST631 or LBSC795. Formerly: LBSC795.

Principles of human-human and machine-machine communication as a basis for models of human-computer communication. Issues related in input/ output devices, conceptual models, levels of control, metaphor and personification, adaptability, and intensionality/extensionality.

IM01	Caro Williams-Pierce	Seats (Total: 30)
	Tu 6:00pm - 8:45pm	HBK 0302H

IM02	Caro Williams-Pierce Th 6:00pm - 8:45pm	Seats (Total: 30) HBK 0302H

INST639L **Practical Skills in HCI; Accessibility Evaluation Workshop**

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

IM01	Rachael Bradley-Montgomery M 6:00pm - 7:00pm Class time/details on ELMs	Seats (Total: 15) JMZ 0208 ONLINE

INST650 **Facilitating Youth Learning in Formal and Informal Environments**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST650 or LBSC640. Formerly: LBSC640.

The historical, organizational, and contemporary contexts of formal and informal learning spaces; the principles of teaching, learning, and information literacy that underlie the formal and informal learning spaces; and the leadership role that information professionals can play within their schools, libraries and communities.

IM01	Linda Braun Class time/details on ELMs	Seats (Total: 30) ONLINE

INST651 **Promoting Rich Learning with Technology**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST651 or LBSC642. Formerly: LBSC642.

Exploration of how technology can be used to promote rich learning experiences, with a particular focus on youth populations. Assessment of the how, when, and why of infusing technology into the teaching and learning process.

IM01	Waqas Shah Class time/details on ELMs	Seats (Total: 30) ONLINE

INST653 **Introduction to Museum Scholarship**

Cross-listed with: AMST655, ANTH655, HIST610. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

0201	Diana Marsh	Seats (Total: 30)
	Th 2:00pm - 4:40pm	HBK 0103

INST661 **Introduction to Game, Entertainment, and Media Analytics**

Prerequisite: Permission of the instructor.

With the continuing global growth in the Game, Entertainment, and virtual/augmented reality and immersive experiences industries, entertainment providers increasingly depend on data analytics to maintain a competitive edge while continuing to improve the customer experience. This course provides an overview of the Game, Entertainment, and Media (GEM) industries, discuss the relationships between the entertainment providers and the entertainment consumers, and explore the analytical techniques used to maximize the overall value to both the providers and consumers. The course will focus on the uses of analytics methods such as personalization, recommendation, clustering and segmentation, behavioral analytics, etc., will discuss core data management and data architecture concerns, and examine how big data infrastructure can support scalability as data volumes grow and as streaming speeds accelerate. In addition we review socio-technical aspects of entertainment, especially in the areas of cyberpsychology, social networks, and information policy concerns such as privacy protection, fraud, equity, and national security concerns.

IM01	Jesse Klein	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INST682 **Personal Health Informatics & Visualization**

Personal Health Informatics cover a broad concept that encompasses an array of approaches to collect, store, share, analyze, and reflect on personal health data. Not only health care providers are relying on Health Technologies to improve patient care, people are increasingly using health devices and apps in their everyday life. Individuals have started using new technologies to collect data, increase awareness, and reflect on and change their behaviors. They also use various tools for curiosity and fun. This course will provide an overview of this exciting field and examine how social and behavioral theories can be applied to create effective health applications.It is difficult to create health technologies that can successfully be integrated into people's daily life due to many obstacles in individuals' data collection, integration, self-reflection, and sharing practices. Understanding these challenges is an important part of designing Health Technologies. Therefore, this course will cover HCI and design thinking methods that you can leverage in understanding the adoption of Health Technologies. Moreover, visualizations facilitate people to gain insights from their data, so we will cover common visualization approaches used in the personal data contexts.

Jointly offered with CMSC838X. Credit only granted for INST682 or CMSC83 8X.

IM01	Sagar Baraskar	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST704 **Inclusive Design in HCI**

Prerequisite: INST631; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST728Z OR INST704. Formerly: INST728Z.

An introduction to inclusive technology design, that is, the design and evaluation of user interfaces for diverse users and use contexts. Building on basic concepts in human-computer interaction, students will learn about design exclusion and barriers to use, and methods by which these can be overcome. Assistive input and output technologies will also be covered. Populations include older adults, users with visual, cognitive or motor impairments, users who are deaf or hard of hearing, children, users in low resource contexts, and users in mobile contexts. Research trends and practical design considerations (e.g., web accessibility requirements) will be covered. Students will interact with the material through readings, discussion, and individual and group assignments.

IM01	Tom Brinck Tu 11:00am - 1:45pm	Seats (Total: 30) HBK 0302J

INST709 **Independent Study**

(Perm req)

Intensive individual study, reading, or research in an area of specialized interest under faculty supervision. Registration limited to the advanced student with the approval of the advisor and of the faculty member involved.

Contact department for information to register for this course.

INST710 **User Experience Research Methods**

Students will learn to conduct user research in industry and to provide foundational knowledge needed for academic research. It examines the theoretical and epistemological differences between research paradigms and provides an overview of qualitative, quantitative and mixed-method approaches. It overviews user-centered design (UCD) methods, and uses Contextual Inquiry/Contextual Design as the backbone for a research project, incorporating related formative UCD methods and techniques. It is a project-based course, where students conduct a semester-long project to prepare them for the HCIM Capstone as well as other types of formative user research.

Restriction: For students in HCIM program only.

IM01	Heera Lee W 6:00pm - 8:45pm	Seats (Total: 40) HBK 0302H

INST711 **Interaction Design Studio**

Covers basic interaction design principles and design process from a studio-based design perspective. Focuses on how to design for interactions that will resonate with your audiences: how the features and functions of a project get translated into something people find usable, useful, and desirable. Explores the role of interaction designers. Students design and prototype interactive products, systems, and services.

IM01	Alex Leitch Tu 2:00pm - 4:45pm	Seats (Total: 25) HBK 0302J

INST728C **Special Topics in Information Studies; Advanced Visual Design for Interfaces**

Selected topics in information studies.

This studio course gives students a professional, career-ready visual design skill-set by continuing to explore and build off of advanced topics in strategy, concept, artistic direction and execution. Students will combine visual design analysis with business objectives to produce iterative, presentable projects and case studies that reflect the real world processes and results of commercial work

IM01	Jason Aston M 11:00am - 1:45pm	Seats (Total: 30) HBK 0302H

INST735 **Natural Language Processing**

Prerequisite: Minimum grade of C- in CMSC422; and permission of CMNS-Computer Science department. Cross-listed with: CMSC723, LING723. Credit only granted for: CMSC723, LING723, or INST735. Additional information: CMSC students may only receive PhD Comp. credit for CMSC723 or CMSC823, not both.

Introduce fundamental concepts, techniques, and algorithms for the computational handling of natural language. Statistical and machine learning techniques, models, and algorithms that enable computers to deal with the ambiguity and implicit structure of human language. Approaches that focus on uncovering linguistic structure, such as syntactic or semantic parsing, as well as those that focus on manipulating text in useful ways, such as question answering or machine translation.

0101	Marine Carpuat MW 2:00pm - 3:15pm	Seats (Total: 80) IRB 1116

INST737 **Introduction to Data Science**

Prerequisite: INST627 and (LBSC690, LBSC671, INFM603, or JOUR652). Restriction: Permission of INFO-College of Information Studies.

An exploration of some of the best and most general approaches to get the most information out of data through clustering, classification, and regression techniques.

IM01	Vanessa Frías Martínez Class time/details on ELMs	Seats (Total: 40) ONLINE

INST752 **Location Intelligence**

Prerequisite: INFM600, INFM603, INST630, and INST733; or permission of INFO-College of Information Studies.

Provides a comprehensive overview of the principles of geographic information systems and location analytics for a variety of business scenarios. Explores the processes for integrating location information, maps, and demographic information with business information and implementing analytical applications. Reviews business contexts such as government and citizen analysis, zoning and planning, retail site selection, supply chain management and logistics, fieldservice planning and tracking, real estate, insurance, public safety, municipal maintenance, and others. Provides hands-on opportunities to apply location intelligence methods.

IM01	Patricia Bunnell	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INST753 **Data Governance and Data Quality**

Prerequisite: INFM600, INFM603, and INST733; or permission of INFO-College of Information Studies.

Surveys the methods and practices for understanding the relationship between organizational performance objectives and their effective oversight, use, and management of information. Examines methods for instituting information governance, data governance, and data quality in the context of information policies for assessing information risk, observing data policies, and enforcing accountability for protection of sensitive information. Explores models of data ownership and accountability, roles and responsibilities for data governance and data stewardship, and processes for soliciting and documenting information and data requirements. Covers techniques for data quality assessment, specification of data quality rules, and applications for validating compliance with data quality expectations, monitoring levels of data quality, and notifications and dashboards for monitoring data compliance.

IM01	Jonathan Adams	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INST754 **Data Integration and Preparation for Analytics**

Prerequisite: INFM600, INST630, and INST733; and (INFM603 or JOUR652) ; or permission of INFO-College of Information Studies.

Provides a comprehensive overview of the end-to-end processes for acquiring, ingesting, managing, cleansing, transforming and integrating data sources for the purposes of reporting andanalytics. Concepts include data acquisition, data streaming, data staging, standardization, data quality, concept and metadata harmonization, transformation, and data modeling. Students will learn how ingested data sets can be transformed, integrated, and prepared for analytical use.

IM01	David Patrick	Seats (Total: 40)
	Th 11:00am - 1:45pm	HBK 2119

INST756 **Information Risk Management**

Prerequisite: INFM600; or permission of INFO-College of Information Studies.

Looks at information system threats, vulnerabilities, risk assessment and management. Explores how regulations scope and define what is considered to be protected information. Considers how data assets are assessed and classified in terms of their levels of sensitivity. Discusses specifying data protection policies and the techniques for enforcing compliance with those policies.

IM01	Ido Sivan-Sevilla Tu 10:30am - 1:00pm Class time/details on ELMs	Seats (Total: 25) HBK 2119 ONLINE
	In-person lecture will meet on the following dates; August 29, September 5, September 12, September 19, and December 5.	

INST760 **Data Visualization**

Prerequisite: INST630; or INFM603; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST760 or INST728V. Formerly: INST728V.

Introduction to the science and technology of data visualization--the graphical representation of data to aid understanding--and includes both theoretical foundations as well as practical applications of integrated visualization techniques on real-world problems. Application of these techniques to state-of-the-art problem domains within research, society, and industry.

IM01	Md Hoque Tu 2:00pm - 4:45pm	Seats (Total: 40) HBK 0115

INST775 **HCIM CAPSTONE PREP**

Prerequisite: INST631, INST632, and INST717; and must have completed Research Methods; and permission of INFO-College of Information Studies. Or permission of instructor. Restriction: Must be taken in the fall semester of the year in which the student plans to graduate; and permission of INFO-College of Information Studies.

Students will define a project, which requires a high level of background research, rigor in execution and evaluation, and documentation. Capstone projects may follow the design, prototyping and evaluation process from end-to-end or may focus on a subset of elements in that process, such as formative study and design.

IM02	Wayne Lutters M 3:00pm - 5:45pm Th 6:00pm - 8:45pm	Seats (Total: 25) HBK 0302J HBK 0302J
IM03	Heera Lee Tu 6:00pm - 8:45pm Th 6:00pm - 8:45pm	Seats (Total: 25) HBK 0302J ONLINE

INST779 **Readings Seminar; Readings Seminar**

Readings in emerging topics. Through readings and discussion the class will critically assess future directions and highlight intersection points with other disciplines (e.g., medicine) and sub-disciplines of information studies and computer science (e.g., information retrieval, computer vision, machine learning). One or more themes will be covered over the semester (e.g., inclusive design, health informatics, environmental sustainability, social networking) and will be chosen based on instructor and student interest.

Cross-listed with INST828. Credit only granted for INST828 or INSt779.

0101	Instructor: TBA	Seats (Total: 10)

INST782 **Arrangement, Description, and Access for Archives**

Prerequisite: INST604; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC684, LBSC781, LBSC782, or INST782. Formerly: LBSC684, LBSC781, and LBSC782.

Introduction to the key concepts and practices involved with arrangement and description of archives, and the techniques appropriate to enable users to access archival information in traditional and nontraditional archival contexts.

IM01	Eric Hung	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST784 **Digital Preservation**

Prerequisite: INST604; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC784 or INST784. Formerly: LBSC784.

Issues and practices regarding digitization of analog materials and preservation of digital materials, both digitized and born digital.

IM01	Chad Doran	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST787 **Museum Scholarship Practicum**

(Perm req)

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: AMST857, ANTH857, HIST811. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

IM01	Instructor: TBA	Seats (Total: 12)

INST788B **Special Topics: Collaborative Curation; Trustworthy Machine Learning**

This seminar considers the history of curation and curators within the institutional setting of museums and offers participants the opportunity, and challenge, to engage in curatorial practice by planning an exhibition that focuses on a critical aspect of life at and around the University of Maryland over the years.

Trustworthy ML introduces concepts of trustworthiness in machine learning, drawn from computer science, systems engineering, human-computer interaction, psychology, and philosophy. Trustworthiness topics include robustness, uncertainty, fairness, transparency, values alignment, AI safety, etc.

IM01	Hal Daume TuTh 2:00pm - 3:15pm	Seats (Total: 15) IRB 2207

INST798 **Seminar in Research Methods and Data Analysis**

Topics and issues in information studies research. Design and conduct of research project.

IM01	M Sauter Th 2:00pm - 4:45pm	Seats (Total: 20) HBK 0109
IM02	Christopher Antoun Th 6:00pm - 8:45pm	Seats (Total: 20) HBK 0109

INST799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

INST800 **The Engaged Intellectual: An Introduction to Research and Academic Work**

(Perm req)

Restriction: Permission of INFO-College of Information Studies; and restricted to students in Ph.D. in Information Studies (INFS) program.

An introduction to the academic life with a particular focus on what it means to undertake research, teaching, and service.

Restricted to Doctoral Students.

0101	Mega Subramaniam W 2:00pm - 4:45pm	Seats (Total: 20) HBK 2116

INST801 **Theoretical and Epistemological Foundations in Information Studies**

Credit only granted for: INST888 or INST801. Formerly: INST888.

Pursuing a doctorate in information studies involves the scholarly examination of the interaction between people, information, technology, and society. There are, however, as many ways to examine the interaction of people, information, technology, and society as there are researchers and ways of understanding what counts as evidence and knowledge in different components of the field. Students will be introduced to the diverse scholarly traditions that comprise information studies. Students will explore why there are so many ways of knowing and methods of discovery within the field, in order to help them identify the social theory and methods that will support their path through information scholarship.

0101	Joel Chan M 6:00pm - 8:45pm	Seats (Total: 20) HBK 0105

INST808 **Seminar in Research Methods and Data Analysis**

Topics and issues in information studies research. Design and conduct of research project.

IM01	M Sauter Th 2:00pm - 4:45pm *Digital ethnographic methods.*	Seats (Total: 20) HBK 0109
IM02	Christopher Antoun Th 6:00pm - 8:45pm *Survey research methods.*	Seats (Total: 20) HBK 0109

INST809 **Individualized Teaching Experience**

Introduction to the techniques and challenges associated with design, delivery, and evaluation of couses offered at the University level. The doctoral student will work one-on-one with a faculty member in the development and co-teaching of a graduate level course.

0110	Hernisa Kacorri Class time/details on ELMs	Seats (Total: 1) ONLINE
0247	Mega Subramaniam Contact instructor or department for details.	Seats (Total: 5)

INST811 **Pedagogy and Curriculum Development**

In this course, doctoral students will gradually and iteratively build a syllabus for an original course related to Information Studies. The course will cover, in sequence: curriculum models and development; learning outcome development; syllabus development; classroom management and dynamics; design of student assessments; design and delivery of classroom lectures; discussion moderation; working with teaching assistants; hybrid and online pedagogy; learning outcomes assessment; course evaluations; and teaching statements. Upon completion of the course, students will have a fully developed teaching portfolio.

0101	Katherine Izsak Th 2:00pm - 4:45pm	Seats (Total: 20) ONLINE

INST818 **Individual Research Experience**

Pre-candidacy individual research experience directed by a faculty member.

0131	Joel Chan Contact instructor or department for details.	Seats (Total: 1)
0150	Katrina Fenlon Contact instructor or department for details.	Seats (Total: 1)
0166	Jennifer Golbeck Contact instructor or department for details.	Seats (Total: 1)

INST828 **Readings Seminar**

Readings in emerging topics. Through readings and discussion the class will critically assess future directions and highlight intersection points with other disciplines (e.g., medicine) and sub-disciplines of information studies and computer science (e.g., information retrieval, computer vision, machine learning). One or more themes will be covered over the semester (e.g., inclusive design, health informatics, environmental sustainability, social networking) and will be chosen based on instructor and student interest.

Cross-listed with INST779. Credit only granted for INST828 or INSt779.

0101	Galina Reitz Class time/details on ELMs *Foundational Readings in Accessibility and Voice Technology.*	Seats (Total: 10) ONLINE

INST878A **Special Topics in Information Studies; Information Ethics**

Seminar topics offered as faculty and student interests warrant. Topic varies.

0101	Galina Reitz Class time/details on ELMs	Seats (Total: 5) ONLINE

INST878B **Special Topics in Information Studies; Information and Human Rights**

Seminar topics offered as faculty and student interests warrant. Topic varies.

0101	Paul Jaeger Class time/details on ELMs	Seats (Total: 5) ONLINE

INST878C **Special Topics in Information Studies; Diverse Populations, Inclusion, and Information**

(Perm req)

Seminar topics offered as faculty and student interests warrant. Topic varies.

0101	Renee Hill	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

INST878E **Special Topics in Information Studies; Achieving Organizational Excellence**

Seminar topics offered as faculty and student interests warrant. Topic varies.

0101	Ryan O'Grady	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

INST878M **Special Topics in Information Studies; . Privacy and Security in a Networked World**

Seminar topics offered as faculty and student interests warrant. Topic varies.

0101	Jessica Vitak	Seats (Total: 5)
	W 2:00pm - 4:45pm	HBK 0103

INST878O **Special Topics in Information Studies; Computer-Supported Cooperative Work**

Seminar topics offered as faculty and student interests warrant. Topic varies.

Cross-listed with INST608R. Credit only granted for INST878O or INST608R.

0101	Ge Gao	Seats (Total: 15)
	W 1:00pm - 3:45pm	HBK 4113
	Computer-Supported Cooperative Work (CSCW).	

INST898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

INST899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ISRL Israel Studies Fall 2023

ISRL249C **Selected Topics in Israel Studies; Contemporary Israel: History and Society**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present. Future offerings may address history, politics, or culture.

Contact department for information to register for this course.

ISRL249D **Selected Topics in Israel Studies; Women in Israel**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present. Future offerings may address history, politics, or culture.

Contact department for information to register for this course.

ISRL249E **Selected Topics in Israel Studies; Writing Israel**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present. Future offerings may address history, politics, or culture.

Contact department for information to register for this course.

ISRL249F **Selected Topics in Israel Studies; Africa and Israel**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present. Future offerings may address history, politics, or culture.

Cross-listed with ANTH298R. Credit only granted for ISRL249F or ANTH298R. From the influences of Egypt, Ethiopia, and Sudan on Biblical Israel to modern histories of migration and engagement, relationships between Israeli and African societies have contributed formatively to Israel s presence in the Middle East. This course considers the long history of African and Israeli interactions, including modern migrations, religious claims, and socio-cultural developments.

0101	Sandra Scham	Seats (Total: 35)
	MW 3:30pm - 4:45pm	TWS 1106

ISRL283 **The Israeli/Palestinian Conflict: Fundamental Questions**

Credit only granted for: ISRL283 or ISRL289I.. Formerly: ISRL289I.

As has become evident virtually every year, the Palestinian-Israeli conflict retains its capacity to mobilize both sides against each other. Why are Palestinian Arabs and Israeli Jews unable to resolve their differences? This course uncovers some of the deeper explanations as to why the conflict persists, even as it changes over the decades.

0101	Paul Scham	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	TWS 0236

ISRL329C **Special Topics in Israel Studies; Israel: Politics and Society**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listing with GVPT368D. Credit only granted for ISRL329C or GVPT368D. This course will address the main issues in Israeli politics and society by focusing on the role of Zionism in the Jewish state, the institutional foundations of Israeli democracy, the main political parties and blocs and their different ideological principles and visions, as well as the main social groups, movements, and institutions that comprise Israeli civil society.

0101	Ilai Saltzman	Seats (Total: 35)
	MW 11:00am - 12:15pm	HJP 2217

ISRL329N **Special Topics in Israel Studies; The United States and Israel: Likely or Unlikely Allies?**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listing with GVPT368B. Credit only granted for ISRL329N or GVPT368B. An examination of the U.S. - Israel relationship through historical and thematic lenses. Stretching from the pre-state era through the post-Cold War alliance and the intensive U.S. role mediating Arab-Israeli peace, which covers nearly a century of U.S. foreign policy. It will include domestic sources that have shaped U.S. policy, including public opinion, and conclude by examining scenarios for increased cooperation and managing tension in the relationship.

0101	Scott Lasensky	Seats (Total: 35)
	W 5:00pm - 7:30pm	TYD 2111

ISRL330 **Mizrahi Identity in Israel**

Cross-listed with: HIST377, JWST334. Credit only granted for: JWST319D, JWST334, HIST377, HIST329Z, ISRL329M, or ISRL330. Formerly: ISRL329M.

It is impossible to understand Israeli society today without examining the Mizrahi experience. Despite the common misconception that Israel is predominantly made up of Jews from European origin, the fact of the matter is that Jews of Mizrahi origin, whose parents and grandparents immigrated to Israel from the Middle East and North Africa, represent a major part of the Israeli population. Moreover, Ashkenazi-Mizrahi relations continue to be a major source of tension in Israeli politics, and issues of race continue to come up on social media and polarize the Israeli society. This course brings to light narratives of Mizrahi identity in Israel and explores the trajectory of the Mizrahi struggle for equality and against racism through its various milestones: the 1959 Wadi Salib Revolt, the Black Panthers Movement in the 1970s, the emergence of the Israeli Sephardi-Orthodox party Shas, and the new wave of Mizrahi activism in the 21st century.

0101	Shay Hazkani	Seats (Total: 20)
	MW 11:00am - 12:15pm	KEY 0116

ISRL349A **Investigating Topics in Israel Studies; The Psychology of Conflict Resolution**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Contact department for information to register for this course.

ISRL349B **Investigating Topics in Israel Studies; Arab-Israeli Relations**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Contact department for information to register for this course.

ISRL349D **Investigating Topics in Israel Studies; The Right in Israel: A Historical Examination**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with HIST328F and GVPT368I. Credit only granted for ISRL349D, HIST328F, or GVPT368I. Israel has been moving towards the political Right during the last 30 years, as became obvious in its last election in November 2022. This course explores the history of that movement, beginning before Israel became a state, but focusing primarily on 1967 to the present. No previous knowledge of Israeli history required. Contact the instructor for more information.

0101	Paul Scham	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	JMZ 1103

ISRL349G **Investigating Topics in Israel Studies; Tzahal: The Israeli Military in State, Society, and its Middle Eastern Context**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Crosslisted with GVPT368F. Credit only granted for ISRL349G or GVPT368F. This course offers an introduction to general concepts of civil-military relations with a strong focus on the Israeli case. Situating Israel within the Middle East context, the course readings and class discussions will include comparative references to major regional players, such as Egypt, Turkey, Iran, and the Arab Gulf States. The military is a salient feature of all Middle Eastern states; we will explore how Israel both resembles and differs from other states in the region regarding the role of its military and of civil-military relations.

0101	Marwa Maziad	Seats (Total: 30)
	MW 3:00pm - 4:15pm	ONLINE

ISRL349L **Investigating Topics in Israel Studies; Israel's Occupation**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with HIST319K. Credit only granted for HIST319K or ISRL349L. Examines the history of Israel's occupation since 1967, the colonization of Palestinian land for the construction of Jewish settlements, as well as Palestinian resistance. Other topics examined are the role of human rights NGOs, international law, archaeology and the environmental impact of the occupation.

0101	Shay Hazkani	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	KEY 0100

ISRL369C **Special Topics in Study Abroad; Israeli Society in Israeli Cinema**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ISRL448R **Seminar in Israel Studies; Introduction to Human Rights in Israel**

Intensive study of an Israel Studies topic. Expected work product is a substantial research or analysis paper or appropriate equivalent.

Cross-listed with GVPT368R. Credit only granted for ISRL448R or GVPT368R. Provides an overview of how the State of Israel deals with human rights of its citizens, and also non-citizens over which it has control. It will introduce Israel s legal system, human rights record, and its methods of dealing with human rights violations, including those impacting the Arab minority in Israel, women's rights, and those of the Palestinians in the Occupied Territories.

0101	Morad Elsana W 3:00pm - 5:30pm	Seats (Total: 25) JMZ 1124

ITAL Italian Fall 2023

ITAL103 **Intensive Elementary Italian**

Prerequisite: Must have appropriate World Language Placement Test (WLPT) score. Restriction: Not open to fluent/native speakers of Italian. Credit only granted for: ITAL103 or ITAL121.

Covers speaking, reading, writing, listening, and culture of Italian-speaking world.

0101	Alessandra Gavagni TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 15) JMZ 1117 KNI 1206
0201	Alessandra Gavagni TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 15) JMZ 0205 KNI 1103
0301	Joseph Falvo MW 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 15) JMZ 1215 ONLINE

ITAL169C **Special Topics in Study Abroad I; Italian Conversation**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169E **Special Topics in Study Abroad I; Elementary Italian I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169R **Special Topics in Study Abroad I; Introduction to Italian Language and Culture**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL203 **Intensive Intermediate Italian**

Prerequisite: ITAL103; or must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not have completed ITAL122; and must not be a fluent/native speaker of Italian. Credit only granted for: ITAL203 or ITAL122.

Covers speaking, reading, writing, listening, and culture of Italian-speaking world.

0101	Alessandra Gavagni TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 15) JMZ 1122 HBK 1112
0201	Valeria Federici MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 15) LEF 0135 ONLINE

ITAL204 **Advanced Intermediate Italian**

Prerequisite: ITAL203 or equivalent; or must have appropriate World Language Placement Test (WLPT) score.

An intensive study of Italian language and culture. This course completes the sequence of ITAL 103 and 203. After a brief review of important material of Intermediate Italian (ITAL 203), we will cover the last four chapters of Parliamo italiano (Unita 9-12). ITAL 204 is designed to reinforce and deepen the students' knowledge of Italian and its idiomatic usage, and to improve their reading and writing skills through a more in-depth study of more complex grammatical forms. Students are encouraged to practice Italian using grammatical concepts in an active manner. There will be oral and written exercises, short readings, and vocabulary expansion. Special attention will be given to readings, oral comprehension and written compositions. To improve their listening and reading comprehension, students will also view and analyze film clips, and read short articles in newspapers and magazines on current events and global issues pertaining to Italy and the European Union.

0101	Alessandra Gavagni TuTh 3:30pm - 4:45pm	Seats (Total: 15) JMZ 1122

ITAL207 **Speaking and Writing in Italian**

Prerequisite: ITAL204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Italian.

An intensive upper intermediate language course that focuses on Italian speaking and writing. The course, which is taught entirely in Italian, is designed to reinforce and deepen the students' knowledge of the Italian language and its idiomatic usage, and to improve their speaking ability and listening comprehension. Students will be given practice both in speaking extemporaneously and giving oral reports written on a wide range of topics dealing with contemporary Italy. One of the main objectives of the course is to prepare students to take upper level courses (300-400 levels) in Italian language, literature, and culture

0101	Valeria Federici MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 15) JMZ 0120 ONLINE

ITAL211 **Intermediate Conversation**

Prerequisite: ITAL203; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not be a fluent/native speaker of Italian.

Practice in spoken Italian based on reading and listening exercises in a variety of genres. Written assignments and exams.

Contact department for information to register for this course.

ITAL269I **Special Topics in Study Abroad II; Intensive Intermediate Italian I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL269R **Special Topics in Study Abroad II; Elementary Italian I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL301 **Italian Composition**

Prerequisite: ITAL207; or students who have taken courses with comparable content may contact the department.

Techniques of composition; grammatical analysis; various genres; vocabulary.

Contact department for information to register for this course.

ITAL306 **Commercial Italian I**

Prerequisite: ITAL301; or permission of ARHU-School of Languages, Literatures, and Cultures department.

An introduction to Italian Business language and culture. Special emphasis on communicative strategies used in business transactions and applications. Reading and discussion of relevant articles relating to business world from on-line newspapers and magazines.

Contact department for information to register for this course.

ITAL361 **Survey of Italian Society and Culture: From Fascism to the Seventies**

Prerequisite: ITAL207.

Development of Italian society and culture from Fascism to the 1970s. Literature, cinema, economy, popular culture, and daily life. Taught in Italian.

0101	Valeria Federici MW 2:00pm - 3:15pm	Seats (Total: 20) JMZ 1122

ITAL369D **Special Topics in Study Abroad III; Identity and Culture in Italy: A Comparative Approach**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL369F **Special Topics in Study Abroad III; Florence:The Story of the City**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL369W **Special Topics in Study Abroad III; Composition and Style**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL386 **Experiential Learning**

(Perm req)

Prerequisite: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

ITAL399 **Directed Study in Italian**

(Perm req)

Intended for undergraduates who wish to work on an individual basis with a professor of their choice.

Contact department for information to register for this course.

ITAL411 **Monsters and Demons: the Faces of Evil in Dante's Inferno**

An interdisciplinary study of Dante's Inferno as represented in the Divine Comedy. Special emphasis on Dante's own portrayal of monsters and demons and their roles in the poet's eschatological vision of Hell.Taught in English

Contact department for information to register for this course.

ITAL431 **Italian Civilization in Translation**

Credit only granted for: ITAL431 or ITAL432.

Political, social, intellectual, literary and artistic forces shaping contemporary Italy from the late Middle Ages to the present. Taught in English.

Contact department for information to register for this course.

ITAL436 **Italian Cinema I: Neorealism**

Cross-listed with: CINE441. Credit only granted for: CINE441, FILM441 or ITAL436. Formerly: FILM441.

Explores representations of Italy in cinema with special focus on identity formation and the movement of Italian neorealism and post neorealism. Taught in English.

0101	Mauro Resmini	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 0122

ITAL441 **The Dark Side of the Italian Renaissance**

Recommended: Some knowledge of Italian at the elementary or intermediate level.

Examines the dark aspects of the Italian Renaissance, focusing on artistic and literary patronage as a strategy of self-promotion and as a means to achieve and preserve power. From the Northern court of Milan to the Southern Kingdom of Naples, we journey through the Italian peninsula, a land that gave birth to illustrious artists and poets in one of the most troubled periods of Italian history, marked by political conflict, bloody rivalries, family betrayals, and wars. What hides beneath the image of some of these benevolent and enlightened patrons of learning, often praised as "ideal rulers" by artists and writers of the Renaissance, are ambitious and crafty politicians, who sought their own interests and goals in their ruthless pursuit of power

0101	Joseph Falvo MWF 1:00pm - 1:50pm	Seats (Total: 25) JMZ 1122

ITAL471 **Italian Cinema: A Cultural Approach in Translation**

Credit only granted for: ITAL471 or ITAL472.

The culture of Italy through the medium of film from the silent days up to the present. Taught in English.

Contact department for information to register for this course.

ITAL478I **Colloquium in Italian; The Dark Side of the Italian Renaissance**

Colloquium section taught in Italian to accompany 400-level Italian courses taught in English. Discussion, presentations, readings.

Corerequisite: ITAL499I.

0101	Joseph Falvo Contact instructor or department for details.	Seats (Total: 5)

ITAL478Y **Colloquium in Italian; Italian Cinema I**

Colloquium section taught in Italian to accompany 400-level Italian courses taught in English. Discussion, presentations, readings.

Corerequisite: ITAL436.

0101	Mauro Resmini Contact instructor or department for details.	Seats (Total: 5)

ITAL499 **Special Topics in Italian Studies**

(Perm req)

Contact department for information to register for this course.

ITAL499T **Special Topics in Italian Studies; Italian Cities: History through Urban Form**
Contact department for information to register for this course.

ITAL499V **Special Topics in Italian Studies; Italian Comedy on Stage and Screen**

Contact department for information to register for this course.

JAPN Japanese Fall 2023

JAPN101 Elementary Japanese I

Prerequisite: Must have appropriate World Language Placement Test (WLPT) score.

Introduction to basic patterns of contemporary spoken Japanese and to the two phonetic syllabaries (Katakana and Hiragana).

0101	Sanshiroh Ogawa, Makiko Inoue MWF 10:00am - 10:50am TuTh 9:30am - 10:45am	Seats (Total: 15) JMZ 0208 JMZ 0208
0201	Makiko Inoue, Sanshiroh Ogawa MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 0208 JMZ 0208
0301	Sanshiroh Ogawa, Makiko Inoue MWF 2:00pm - 2:50pm TuTh 2:00pm - 3:15pm	Seats (Total: 15) JMZ 0208 JMZ 0208

JAPN201 Intermediate Japanese I

Prerequisite: Minimum grade of C- in JAPN102; or or appropriate World Language Placement Test (WLPT) score.

Contemporary spoken and written Japanese.

0101	Kumiko Akikawa MWF 11:00am - 12:50pm	Seats (Total: 15) CHE 2136
0201	Kumiko Akikawa MWF 1:00pm - 2:50pm	Seats (Total: 15) CHE 2110

JAPN301 Advanced Japanese I

Prerequisite: Minimum grade of C- in JAPN202; or permission of instructor.

Advanced conversation, oral comprehension, and selected readings.

0101	Mari Hamada MWF 10:00am - 11:50am	Seats (Total: 15) JMZ 1215
0201	Mari Hamada MWF 12:00pm - 1:50pm	Seats (Total: 15) JMZ 1226

JAPN311 **Traditional Japanese Language and Culture**

Prerequisite: Minimum grade of C- in JAPN202; or permission of instructor.

Introduction to classical Japanese language (kobun) through representative texts and genres from the literary traditions of the Heian period (794-1185) to the Early Modern period (1600-1868). Taught in Japanese and English.

0101	Jyana Browne TuTh 12:30pm - 1:45pm	Seats (Total: 15) JMZ 1103

JAPN325 **Modern Japanese Literature and Film (In Translation)**

Explores and questions the significance of some of modern Japan's most dynamic historical transformations, pressing social issues, and modes of cultural expression. Covers the Meiji period (1868-1912) to the 21st century.

0101	Michele Mason TuTh 11:00am - 12:15pm	Seats (Total: 30) JMZ 2206

JAPN345 **Mapping Premodern Japan**

Credit only granted for: JAPN498M, JAPN498T, or JAPN345. Formerly: JAPN498T and JAPN498M.

Mapping Premodern Japan investigates travel in Japan through concentrated study of a key route in the premodern period. We will explore the role travel played in larger social, political, economic, and cultural structures and how stories of travel shaped ideas of identity, place, and national culture. We will analyze scholarship, conduct research, and learn the process for developing authentic scholarship in Cultural Studies. The course will culminate in a digital humanities final project in which students will conduct research on the major site of study and present their findings using digital storytelling. Taught in English.

0101	Jyana Browne TuTh 2:00pm - 3:15pm	Seats (Total: 25) JMZ 3205

JAPN386 **Experiential Learning**

(Perm req)

Prerequisite: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

JAPN398D **Special Topics in Japanese Linguistics; The Sounds and Dialects of Japanese**

Special topics in Japanese linguistics. Taught in English.

Introduction to Japanese sounds, focusing on dialectal differences. Topics covered in the course include the pronunciation of (Tokyo) Japanese, sound changes such as vowel devoicing, and pitch accent.

0101	Hitomi Minamida MW 2:00pm - 3:15pm	Seats (Total: 15) ONLINE

JAPN407 **The Art of Translation**

Prerequisite: 1 course with a minimum grade of C- from (JAPN401, JAPN402); or students who have taken courses with comparable content may contact the department.

Theory and practice of translation. Variety of genres. Japanese to English.

0101	Michele Mason TuTh 2:00pm - 3:15pm	Seats (Total: 15) JMZ 0205

JAPN499 **Directed Study in Japanese**

(Perm req)

Contact department for information to register for this course.

JOUR Journalism Fall 2023

JOUR130 **Self-Presentation in the Age of YouTube**

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285. Additional information: May not count toward the Journalism major.

Students, as they make use of evolving technologies, need to be able to present themselves effectively in front of any number of different audiences through any number of different outlets. Whether in an interview on radio, a guest presentation at a conference, in comments on a video blog, in commentary on TV, in the lead on a self-produced YouTube video, or as spokesperson in front of investors or management, professionals need strong oral communication skills. This class focuses on strengthening those skills through active individual and group presentations, as well as, through discussion of key techniques and group critique of presentation publicly available in the social media space on sites such as YouTube.

0101	Hamil Harris MW 6:00pm - 7:15pm	Seats (Total: 30) KNI 1103
FC01	Amber Moore MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) KNI 1103
FC03	Mark Gray TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) KNI 1103

FC04	Hamil Harris MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) KNI 1103
FC05	Mark Gray TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) KNI 1103

JOUR150 **Introduction to Mass Communication**

Additional information: Not applicable toward journalism major.

Survey of the functions and effects of the mass media in the United States. A consumer's introduction to newspapers, television, radio, film, sound recording, books, magazines, and new media technology.

0101	Sara Browning TuTh 11:00am - 12:15pm	Seats (Total: 30) KNI 1103
0201	Edward Alwood TuTh 2:00pm - 3:15pm	Seats (Total: 30) KNI 1103
0301	Edward Alwood TuTh 12:30pm - 1:45pm	Seats (Total: 30) KNI 1103
0401	Denitsa Yotova Class time/details on ELMs *This section meets asynchronously.*	Seats (Total: 30) ONLINE
0701	Denitsa Yotova Class time/details on ELMs *This section meets asynchronously.*	Seats (Total: 30) ONLINE

JOUR152 **Introduction to Storytelling with Code**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in JOUR200.

An introduction to the ways markup and programming languages and computational thinking are transforming news reporting and storytelling.

0201	Naeemul Hassan **Meets October 18, 2023 - December 11, 2023** Class time/details on ELMs	Seats (Total: 100) ONLINE	

JOUR175 **Media Literacy**

Additional information: Not applicable toward journalism major.

An analysis of the information, values and underlying messages conveyed via television, newspapers, the internet, magazines, radio and film. Examines the accuracy of those messages and explores how media shape views of politics, culture and society.

0501	Susan Moeller Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 35) KNI 1208 KNI 1208	 Discussion
0601	Susan Moeller Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 35) KNI 1208 KNI 3202	 Discussion
0701	Susan Moeller Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 35) KNI 1208 KNI 1208	 Discussion
0801	Susan Moeller Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 35) KNI 1208 KNI 3202	 Discussion

JOUR181 **Grammar for Journalists**

(Perm req)

Credit only granted for: ENGL181, ENGL281, or JOUR181.

The basic grammatical structures of standard American written English and its conventions of punctuation, diction and usage in journalistic writing.

0101	Nicki Kern W 9:00am - 9:50am	Seats (Total: 170) ONLINE	

JOUR199 **Survey Apprenticeship**

(Perm req)

College-monitored experience in approved mass-communications organizations and industries.

0101	Karen Denny Contact instructor or department for details.	Seats (Total: 40)

JOUR200 **Journalism History, Roles and Structures**

(Perm req)

Introduction to the study of journalism from the standpoint of media history and sociology.

0301	Christoph Mergerson TuTh 11:00am - 12:15pm	Seats (Total: 30) KNI 1105
0401	Krishnan Vasudevan M 12:30pm - 1:45pm W 12:30pm - 1:45pm	Seats (Total: 30) KNI 3202 KNI 1208
0501	Ira Chinoy TuTh 9:30am - 10:45am	Seats (Total: 30) KNI 1208
0601	Robin Sundaramoorthy TuTh 12:30pm - 1:45pm	Seats (Total: 30) KNI 1105

JOUR201 **News Writing and Reporting I**

(Perm req)

Prerequisite: Minimum grade of C- in ENGL101, JOUR181, and JOUR200; and permission of JOUR-Philip Merrill College of Journalism. Restriction: For students intending to be journalism majors; and permission of JOUR-Philip Merrill College of Journalism.

Introduction to news for the print and electronic media, development of new concepts: laboratory in news-gathering tools and writing skills. Students who earned 80% or higher on the JOUR181 diagnostic are exempt from the JOUR181 prerequisite.

0101	Rob Wells TuTh 3:00pm - 4:50pm	Seats (Total: 18) KNI 2107
0501	Constance Ford MW 12:00pm - 1:50pm	Seats (Total: 18) KNI 2103

JOUR202 **News Editing**

(Perm req)

Prerequisite: JOUR201. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Copy editing, fact checking, verification and research across media platforms, including social, with consideration of story play and placement, graphic principles, headlines and SEO.

0201	Jodi Friedman MW 9:00am - 10:50am	Seats (Total: 18) KNI 2107

JOUR262 **News Videography**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in JOUR201. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR603. Credit only granted for: JOUR262, JOUR347 or JOUR603. Formerly: JOUR262.

Introduction to shooting, editing and production of video stories for broadcast and the Web; includes newsgathering in the field.

0201	Kara Dixon M 5:00pm - 7:45pm	Seats (Total: 12) TWS 0222B
0301	Alanna Kopania MW 11:00am - 12:50pm	Seats (Total: 12) TWS 0222A
0501	Benjamin Worsley TuTh 7:00pm - 8:50pm	Seats (Total: 12) TWS 0222B

JOUR282 **Beyond Facebook: How Social Media are Transforming Society, Culture, Business and Politics**

Credit only granted for: JOUR289F or JOUR282. Formerly: JOUR289F.

How has social media changed the world, and how has the world changed social media? This course explores how social media has influenced relationships, culture, industry, politics, and the information environment, as well as how significant global events and technological advancements have contributed to the evolution of social media. This course gives students a broad contextual understanding of social media that they may apply in their daily lives as well as future academic inquiry.

0101	Dinfin Mulupi TuTh 2:00pm - 3:15pm	Seats (Total: 30) KNI 1105
0201	Sarah Oates Class time/details on ELMs	Seats (Total: 70) ONLINE

JOUR283 **Probing War: Investigative Narratives and American Conflicts**

Credit only granted for: JOUR283 or JOUR289J. Formerly: JOUR289J.

What role should the American news media play when the United States is at war? Students will explore the realities of war through the work of journalists who pushed beyond the daily headlines, some risking life and limb, to challenge official versions and document uncomfortable realities about American conflicts.

0101	Christopher Hanson MW 11:00am - 12:15pm	Seats (Total: 30) KNI 1208

JOUR284 **Scandal: Exposing Corruption, Justice, and Vice in America**

Credit only granted for: JOUR289P, JOUR284 or HONR239J. Formerly: JOUR289P, HONR239J .

What are the ingredients of a juicy scandal? Money? Sex? Power? How are scandals uncovered? Why does society punish some scoundrels but not others? Come explore both serious and salacious scandals with a professor who's an expert in both--and who once exposed many scandals himself when he was an investigative reporter. This class examines scandals in politics, science, religion, social media, business, government, sports, and higher education; feeding frenzies, tabloid scandalmongering, undercover reporting, apologies, and cancel culture. Learn why even trivial scandals matter--and how scandals reflect what we value and ultimately who we are.

0101	Mark Feldstein TuTh 11:00am - 12:15pm	Seats (Total: 60) KNI 1208

JOUR289I **Information 3.0: Exploring Technological Tools**

0101	Ronald Yaros Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 72) ONLINE ONLINE

Students in this section will use a custom mobile app.

JOUR320 **News Writing and Reporting II: Multiplatform**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in JOUR152; and minimum grade of C- in JOUR201; and must have completed or be concurrently enrolled in JOUR262 or JOUR370. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Principles and practices of news reporting; covering news beats and other news sources, including researching news stories for accuracy, comprehensiveness and interpretation. Due to rigorous publication requirement, plan your schedule accordingly.

0201	David Lightman TuTh 8:00am - 9:50am	Seats (Total: 18) KNI 2105
0401	Jamaal Abdul-Alim MW 12:00pm - 1:50pm	Seats (Total: 18) KNI 2105
0501	Abbie Bennett MW 7:00pm - 8:50pm	Seats (Total: 18) KNI 1101

0601	Clarence Williams TuTh 11:30am - 1:20pm	Seats (Total: 18) KNI 1101
0701	Jerry Zremski TuTh 2:00pm - 3:50pm *Students in this section will contribute to the Local News Network at the University of Maryland's Philip Merrill College of Journalism.*	Seats (Total: 18) KNI 1101

JOUR325 **Capital News Service Bureau**

(Perm req)

Prerequisite: JOUR320; and permission of JOUR-Philip Merrill College of Journalism.

Advanced journalism training. Students report as part of college's Capital News Service program.

Jointly offered with JOUR625. Students must contact the instructor for permission to register. Washington, DC students should enroll in section 0101. Annapolis students should enroll in section 0201. College Park students should enroll in section 0301 or section 0401, depenging on their bureau.

0101	James Carroll Contact instructor or department for details. *This section meets in the CNS Bureau, Washington, DC.*	Seats (Total: 9)
0201	Adrianne Flynn Contact instructor or department for details. *This section meets in the CNS Bureau, Annapolis, MD.*	Seats (Total: 9)
0301	Adam Marton Contact instructor or department for details. *This section meets in the CNS Bureau, College Park, MD.*	Seats (Total: 9)
0401	Alexander Pyles Contact instructor or department for details. *This section meets in the CNS Bureau, College Park, MD.*	Seats (Total: 9)

JOUR328F **Special Topics in News Writing and Reporting; Reporting on Journalists Imprisoned Overseas**

(Perm req)

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320 Students will dip into national security and diplomatic reporting by learning to research the context, laws and international pressure surrounding an individual journalist imprisoned in a particular country. Students will learn how to find sources and conduct interviews with diplomats, experts, reporters and family members living overseas while never leaving College Park.

0101	Dana Priest	Seats (Total: 10)
	M 9:30am - 12:15pm	KNI 3200

JOUR328I **Special Topics in News Writing and Reporting; Turning Your Degree into Multiple Career Options**

Advanced training and practice in writing and reporting news.

Prerequisite: Must have earned at least 45 credits. Whether you love your major or hate it, it doesn't matter. That's because the many skills you're learning in journalism and other humanities majors like -- English, History, Government & Politics, Philosophy, Sociology, etc -- are transferable into countless industries. You'll learn step-by-step how to inventory the most valuable skills you've gained inside and outside the classroom and translate them into tangible job functions that exist in almost any industry you can imagine. From Aeronautics to Architecture, from Hedge Funds to Health Care, from IG & TikTok from Intelligence & Foreign Affairs, this will be a course unlike any other you've taken in college because its sole focus is to help you identify at least three career options you'd be excited to pursue after you graduate and then show you how to use LinkedIn to uncover those jobs and internships.

0101	Andrea Koppel	Seats (Total: 22)
	Meets August 28, 2023 - October 17, 2023	
	M 12:30pm - 1:20pm	KNI 3200
	Class time/details on ELMs	ONLINE
	The first class and the last class meet in-person and the other sessions are asynchronous.	

JOUR328X **Special Topics in News Writing and Reporting; The Art of Interviewing**

(Perm req)

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. This course will substantially deepen your skills at the most elemental act in journalism knowing how to ask questions that elicit more honest and illuminating answers. You'll learn by doing, watching, and listening -- looking at some of the best interviews ever -- and some of the not so best -- and and analyze the differences. Students will conduct various interviews of their own, watch and critique themselves and their fellow students, and hear from some of the most skilled interviewers in the field today.

0101	Thomas Rosenstiel	Seats (Total: 13)
	W 10:00am - 12:45pm	KNI 3202

JOUR334 **Audio and Podcast Reporting**

(Perm req)

Prerequisite: JOUR360. Formerly: JOUR368L.

Students will learn the tools needed to report and produce short- and long-form audio storytelling, including writing, reporting, interviewing, production, editing, hosting and delivery. Field reporting and audio gathering outside of class are required, along with writing and mixing broadcast-quality audio stories. Students will work together to produce a complete radio broadcast on deadline, with live and pre-recorded elements. Various interests in audio reporting are welcome and encouraged.

0101	Steven Drummond Tu 5:30pm - 8:15pm	Seats (Total: 6) KNI 1101

JOUR352 **Interactive Design and Development**

(Perm req)

Prerequisite: JOUR152; and JOUR201; and must have completed or be concurrently enrolled in JOUR262 or JOUR370. Or permission of JOUR-Philip Merrill College of Journalism. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Jointly offered with JOUR652. Credit only granted for: JOUR352 or JOUR652.

Conceptualize, wireframe, design and build responsive Web pages using HTML, style sheets and other coding tools; work with open source interactive tools, JavaScript libraries, multimedia and text to create charts, timelines, maps and other forms of nonfiction storytelling.

0201	Stacey Decker Tu 11:00am - 1:45pm	Seats (Total: 18) KNI 2105
0301	Kalani Gordon Th 5:30pm - 8:15pm	Seats (Total: 18) ONLINE
0401	Adam Marton W 11:00am - 1:45pm	Seats (Total: 15) KNI 2107
0501	Gagan Nirula Th 5:30pm - 8:15pm	Seats (Total: 17) KNI 1101

JOUR353 **News Bureau: Multimedia Reporting**

(Perm req)

Prerequisite: JOUR352; and permission of JOUR-Philip Merrill College of Journalism; and (JOUR320 or JOUR360).

Advanced reporting and writing in an online environment focusing on multimedia, non-traditional storytelling and investigative reporting.

0201	Adrianne Flynn Contact instructor or department for details. *This section is for students in the Annapolis bureau.*	Seats (Total: 7)

0301	James Carroll Contact instructor or department for details. *This section is for students in the Washington, D.C. bureau.*	Seats (Total: 7)

JOUR355 **News Bureau: Multimedia Editing and Production**

(Perm req)

Prerequisite: JOUR320 or JOUR360; and JOUR352; and permission of JOUR-Philip Merrill College of Journalism.

Advanced online journalism training. Students work as multimedia and social media editors and producers, building interactive content and special reports.

0101	Adam Marton Contact instructor or department for details.	Seats (Total: 10)
0201	Alexander Pyles Contact instructor or department for details.	Seats (Total: 10)

JOUR357 **Capital News Service Broadcast Immersion**

(Perm req)

Prerequisite: JOUR361; and permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the College's Capital News Service program.

0101	Melvin Coffee Contact instructor or department for details.	Seats (Total: 7)

JOUR360 **News Writing and Reporting II: Broadcast**

(Perm req)

Prerequisite: Minimum grade of C- in JOUR201. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Writing and reporting for broadcast media: production of news stories.

0201	Alison Burns MW 10:00am - 11:50am	Seats (Total: 10) KNI 2105
0301	Stuart Schwartz MW 1:00pm - 2:50pm	Seats (Total: 16) TWS 0222B

0401	Elizabeth Feldman TuTh 10:30am - 12:20pm	Seats (Total: 18) KNI 2107	

JOUR361 **Television Reporting and Production**

(Perm req)

Prerequisite: JOUR262 and JOUR360.

Writing and editing for the broadcast media. Interpretive and documentary news stories.

Due to rigorous fieldwork requirement, plan your schedule accordingly.

0301	Joshua Davidsburg TuTh 12:00pm - 1:50pm	Seats (Total: 12) TWS 0222B	

JOUR362 **Broadcast News Producing**

(Perm req)

Prerequisite: JOUR262 and JOUR360; and must have completed or be concurrently enrolled in JOUR361.

Producing TV news.

0102	Cindy Wright Tu 7:15pm - 9:15pm Tu 2:00pm - 6:50pm	Seats (Total: 4) TWS 0117 TWS 0117	 Lab
0104	Cindy Wright Tu 7:15pm - 9:15pm Th 2:00pm - 6:50pm	Seats (Total: 4) TWS 0117 TWS 0117	 Lab

JOUR364 **Advanced Audio and Podcast Reporting**

(Perm req)

Prerequisite: JOUR 334. Jointly offered with: JOUR664.

Students will receive professional skills training in the reporting, writing, editing, voicing and production of radio news. Students will be required to do extensive field reporting, along with writing and mixing radio pieces. They will also participate in other aspects of radio news production, including editing, directing, live interviewing and hosting. By the end of the semester, students will have created all the elements of a complete radio broadcast. The class will also delve into the history and evolution of radio news and its future in podcasting and other forms.

0101	Robert Little W 5:30pm - 8:15pm	Seats (Total: 6) KNI 3210	

JOUR367 **Broadcast News Bureau**

(Perm req)

Prerequisite: JOUR361; and permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the college's Capital News Service program.

Jointly offered with JOUR667.

0101	Melvin Coffee	Seats (Total: 15)
	Contact instructor or department for details.	

JOUR368A **Topics in Broadcast and Electronic Media; Sports Reporting: Broadcast and Storytelling**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262, JOUR320 and JOUR360. This class will focus on the art of storytelling for television. Students will get practical, hands-on experience in presentation, learning how to master interviewing skills as well as reporting and anchoring with a heavy focus on the details of writing for broadcast. Students will work creatively and collaboratively to understand how to take a story from an idea to an on-air finished product.

0101	Robert Carlin	Seats (Total: 10)
	MW 4:00pm - 5:50pm	TWS 0222A

JOUR368D **Topics in Broadcast and Electronic Media; Social Media Content Creation, Audience Engagement and Analytics**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR320/JOUR360. This class will provide students with an overview of social media best practices for journalists, and will work to develop their skills in the following areas: social content creation, audience engagement, sourcing and verification and analytics. By the end of this course, students will have the practical skills needed to manage a social media account for themselves (as student or professional journalists) or contribute to the management of a news organization's social media presence.

0101	Emma Harris	Seats (Total: 13)
	Tu 12:30pm - 1:45pm Class time/details on ELMs	ONLINE ONLINE

JOUR368J **Topics in Broadcast and Electronic Media; Promo Production**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR320/JOUR360 or permission of instructor. This class will explore, plan, and execute video promotions for the CNS-TV broadcast, and all the surrounding college of journalism bureaus. It will focus on pre-production, production, and post-production skills that will assist in creating finished video products across multiple projects.

0101	Nathaniel Stevens Tu 12:00pm - 2:45pm	Seats (Total: 8) KNI 1210

JOUR368L **Topics in Broadcast and Electronic Media; Introduction to Studio Production**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262 or permission of instructor - nsteven5@umd.edu. This course will take you through every production aspect related to studio production. This includes learning how to plan and execute a live studio production featuring camera crews, a floor director, producer, director, technical director, audio, and teleprompter. Labs will focus on putting together and executing a live newscast production. Students will also be able to go on live shots with reporters to run camera/lighting.

0101	Nathaniel Stevens TuTh 4:00pm - 6:00pm	Seats (Total: 10) TWS 0116

JOUR368N **Topics in Broadcast and Electronic Media; Advanced Photojournalism**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR370. This course will provide a deeper dive into the storytelling medium of photojournalism. Students will learn the skills necessary to tell in-depth, long-term stories through the use of still photography. Topics of discussion will include the history of photojournalism, changing approaches to the photo story/photo essay overtime, how to approach a variety of potential subject matter and situations, finding long-term photo story projects and organizing images for a variety of digital and traditional formats.

0101	Timothy Jacobsen F 9:00am - 11:45am	Seats (Total: 8) KNI 2107

JOUR368O **Topics in Broadcast and Electronic Media; Advanced Studio Production**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR368L or permission of instructor. This course will take you through every production aspect related to studio production and work as production support for live sports or video game news shows. This includes learning how to plan and execute a live studio production featuring camera crews, a floor director, producer, director, technical director, audio, and teleprompter. It will also include post-production promo pieces for live shows, as well as social media components that are production-related.

0101	Nathaniel Stevens W 4:00pm - 6:45pm	Seats (Total: 13) TWS 0116

JOUR368X **Topics in Broadcast and Electronic Media; Documentary Filmmaking**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262 and JOUR320/JOUR360. Hands-on independent documentary production. From pre-production to distribution, the class will include field production, pitching, grant writing and more.

0101	Joshua Davidsburg TuTh 2:00pm - 3:50pm	Seats (Total: 8) TWS 0222B

JOUR368Y **Topics in Broadcast and Electronic Media; Sports Producing**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262 and JOUR360; or JOUR320. This class will take an analytical look at sports TV and sports content by deconstructing shows. We will examine the producer's role in creating the look, feel and direction of shows and learn how to choose a lead story, how to "tease" effectively and the importance of identifying and telling good stories. We will watch live televised sporting events to better understand the techniques used by directors and producers. Students will get hands-on experience with BTN2GO and learn all aspects of live game production.

0101	Joseph Yasharoff W 7:00pm - 9:45pm	Seats (Total: 9) KNI 2103

JOUR370 **Photojournalism**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in JOUR201. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR370 or JOUR670. Additional information: Students are required to borrow, rent or purchase a 35mm digital camera. Contact department for camera specifications.

Examining the basics of shooting, editing and storytelling with still photos taken with 35mm digital cameras. Students shoot portraits, feature photos and action shots. Final project is a photo story/essay.

0101	Timothy Jacobsen F 12:00pm - 2:45pm	Seats (Total: 12) KNI 2107
0301	Timothy Jacobsen W 4:00pm - 6:45pm	Seats (Total: 14) KNI 1101

JOUR371 **Feature Writing**

(Perm req)

Prerequisite: JOUR320.

Research and writing feature articles.

0101	DeNeen Brown M 3:00pm - 5:45pm	Seats (Total: 17) KNI 3202

JOUR382 **Sports Reporting and Writing**

(Perm req)

Prerequisite: JOUR320; and permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR682. Credit only granted for: JOUR328B, JOUR382 or JOUR682. Formerly: JOUR328B.

Gives students full and wide-ranging instruction in all aspects of sports reporting and writing, including how to report, write, edit and lay out sports stories, incorporating photography and multimedia. We will also discuss ethics, objectivity, fairness and the future of sports journalism.

0101	Kaitlyn Wilson MW 4:00pm - 5:15pm	Seats (Total: 10) KNI 2105

JOUR389E **News Coverage of Special Topics; Entertainment, Arts and Culture Reporting**

(Perm req)

Advanced training and practice in writing and reporting news in one specialized field of interest.

Prerequisite: JOUR320. Entertainment reporting is much more than just gossip. This course will cover the ins and outs of celebrity interviews, red carpets, theater reviews, diversity in media, freelancing, pitching and narrative writing. Expect to leap out of your comfort zones and take advantage of the DMV arts scene, not to mention hone your national entertainment coverage skills.

0101	David Oliver M 6:00pm - 8:45pm	Seats (Total: 17) KNI 2105

JOUR389I **News Coverage of Special Topics; Investigative Reporting**

(Perm req)

Advanced training and practice in writing and reporting news in one specialized field of interest.

Prerequisite: JOUR320. Introduces students to the skills and techniques of investigative reporting. Students will learn how to report, write and publish investigative stories.

0101	James Risen M 2:00pm - 4:45pm	Seats (Total: 15) KNI 2103

JOUR389L **News Coverage of Special Topics; Lynching and the Press**

(Perm req)

Advanced training and practice in writing and reporting news in one specialized field of interest.

Prerequisite: JOUR320 or permission of instructor. This course will study how the news media covered lynching from 1789 to 1963 and will contribute to an ongoing academic research project and article. Students will classify and analyze hundreds of news articles toexplore how the media framed lynching events, portrayed lynching victims, and described he role of law enforcement at lynching events. During the course of the semester, students will engage in historical research, content analysis, database creation and management, and computational textual analysis.

0101	Rob Wells Th 9:00am - 10:50am Class time/details on ELMs	Seats (Total: 15) KNI 1101 ONLINE

JOUR389M **News Coverage of Special Topics; The Future of Football**

(Perm req)

Advanced training and practice in writing and reporting news in one specialized field of interest.

Prerequisite: JOUR320. Participation in youth tackle football is declining. According to one study, it has fallen 20 percent for children ages 6 to 12 in recent years. What does that say about the future of football for kids and about the future of all football? In this course, we'll interview youth players and parents around the country to hear what football means in communities that are affluent and poor, urban and rural, predominantly white, black and Hispanic. We'll also include the voices of youth sports physicians, educators, sociologists, ethicists and others.

0101	Mark Hyman M 1:00pm - 3:45pm	Seats (Total: 8) KNI 1101

JOUR396 **Supervised Internship**

(Perm req)

Prerequisite: Must have earned a grade of C- or better in JOUR201. Restriction: Must be a major in the JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR326, JOUR366, or JOUR396.

Students will complete a minimum of 90 hours in a supervised journalism internship over a minimum of 10 weeks in spring and fall, and eight weeks in summer. Emphasis is on relating academic training to professional experience. To enroll, students must do the following: Fill out the internship proposal form, have their internship supervisor fill it out, and meet with the college's internship director to receive permission to register. No requests to register after the Schedule Adjustment Period will be granted.

0101	Karen Denny Contact instructor or department for details.	Seats (Total: 45)

JOUR398 **Independent Study**

(Perm req)

Individual projects in journalism.

Contact department for information to register for this course.

JOUR402 **Journalism Law and Ethics**

(Perm req)

Prerequisite: JOUR201. Credit only granted for: JOUR402 OR JOUR400 and JOUR300.

An examination of the legal rights and ethical problems and constraints of mass media, including libel, privacy, copyright, monopoly and contempt.

0101	Micah Ratner W 6:00pm - 8:45pm	Seats (Total: 40) KNI 1208
0201	Megan Fromm Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 25) ONLINE KNI 3202
0301	Megan Fromm Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 20) ONLINE KNI 3200

JOUR405 **Breaking News With Numbers: Statistics for Journalists**

(Perm req)

Prerequisite: Minimum grade of C- in JOUR201; and (MATH107 or MATH110; or must have completed a higher level math course). Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Common statistical tools, software and data visualization techniques will be used to allow students to analyze data and solve problems relevant to reporting and writing about politics, sports, criminal justice, business and other fields.

0101	Tom Brune	Seats (Total: 38)
	Class time/details on ELMs	ONLINE

JOUR447 **Sports, Protest and the Media**

Credit only granted for: JOUR447 or JOUR458M. Formerly: JOUR458M.

Addresses why activists, whether athletes or not, have long commanded ceremonial and ritualistic games to promote a cause or take a stand. It examines the important role of media as collectors, editors, interpreters and disseminators of information or news about athletic competitions, athletes and political pronouncements revolving around athletic events and their participants.

0101	Kevin Blackistone	Seats (Total: 15)
	M 10:00am - 11:15am	KNI 3202
	W 10:00am - 11:15am	KNI 1101

JOUR452 **Women in the Media**

Cross-listed with: WGSS452. Credit only granted for: JOUR452, WMST452 or WGSS452. Formerly: WMST 452.

Participation and portrayal of women in the mass media from colonial to contemporary times.

0101	Gea Ujcic	Seats (Total: 30)
	TuTh 9:30am - 10:45am	KNI 1105

JOUR453 **Media Coverage of Diversity**

Restriction: Junior standing or higher.

Analysis of media coverage of issues relating to diversity in the United States, with special attention to race, ethnicity, class, gender, sexual orientation and religious affiliation.

Jointly offered with AASP499N. Analysis of news media coverage of issues relating to racial minorities in the United States, with special attention to Hispanics, Asian Americans, African Americans and Native Americans.

0101	Anne Rosen	Seats (Total: 25)
	TuTh 9:30am - 10:45am	KNI 3202

JOUR456 **Literature in Journalism**

Credit only granted for: JOUR456 or JOUR673.

From Truman Capote's In Cold Blood to Mark Bowden's Black Hawk Down, students will examine how literary works can help writers approach a subject in a different way than more traditional forms of journalism, including the advantages and limitations of the style.

0101	Christopher Hanson	Seats (Total: 18)
	Tu 4:15pm - 7:00pm	KNI 3202

JOUR458B **Special Topics in Journalism; Sports Media Today**

Issues of special concerns and current interest.

Students will discuss working with various organizations' communications/media relations staff, coaches and players; distributing news of the organizations; and creating/maintaining methods for disseminating the news to the public in an honest and forthright manner. Also, traditional, digital and social media elements will be explored. Restriction: Junior Standing or higher.

0101	Rose DiPaula	Seats (Total: 26)
	Tu 3:30pm - 6:15pm	KNI 1208

JOUR458F **Special Topics in Journalism; Campaign '24: An Election Unlike Any Other**

Issues of special concerns and current interest.

You will study the daily coverage of the year's biggest story, where one frontrunner is indicted and the other faces investigation by a special counsel. We'll examine critical reporting and storytelling done under extreme deadline pressure.

0101	Tom Bettag	Seats (Total: 18)
	M 10:00am - 11:15am	KNI 2103
	W 10:00am - 11:15am	KNI 2103

JOUR458K **Special Topics in Journalism; The Changing Role, Responsibilities and Norms of Journalism**

Issues of special concerns and current interest.

This class will take students through a critical review of how news and information flows in society today, how that is continuously changing, and what it means about how journalists and news organizations should alter routines and practices and while defending foundational principles. Students will think about their own goals as news practitioners, their habits as consumers. Ultimately, they will draft a set of principles and practices and a statement of values for a news organization that they would lead, applying the critical thinking and historical review learned in the class.

0101	Thomas Rosenstiel	Seats (Total: 18)
	M 3:00pm - 5:45pm	KNI 1208

JOUR458N **Special Topics in Journalism; Managing Non-Profit Newsrooms**

Issues of special concerns and current interest.

Nonprofits are one of the fastest-growing segments of the news industry, and the most-successful organizations are filling gaps in local news ecosystems and serving communities that commercial outlets can no longer afford to serve. But at its core, "nonprofit" is a tax status, not a business model. Nonprofits face the same revenue challenges as their commercial counterparts - and a host of other challenges unique to their legal status. This course will explore the growth in the space; outline the challenges; and teach the basics of the business and economics of nonprofit management.

0101	Thomas Davidson	Seats (Total: 13)
	Tu 5:00pm - 7:45pm	KNI 3200

JOUR458V **Special Topics in Journalism; The Power of the Writing Voice: Covering Celebrities, Art Exhibits, Concerts & Theatre for Newspapers & Magazines**

Issues of special concerns and current interest.

In this course, students will be introduced to writing journalism profiles of celebrities, covering music concerts, art exhibitions and theatrical productions for "Style" sections of newspapers and magazines.

0101	DeNeen Brown	Seats (Total: 20)
	W 3:00pm - 5:45pm	KNI 3202

JOUR459F **Special Topics in Journalism; Media in War and Crisis**

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459K **Special Topics in Journalism; Global Media and International Journalism in the 21st Century**

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459L **Special Topics in Journalism; European Mass Media**

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459V **Special Topics in Journalism; Media and International Affairs**

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR471 **Follow the Money: Reporting on Business**

(Perm req)

Prerequisite: Must have completed a university statistics course. Restriction: By permission of the College of Journalism. Credit only granted for: JOUR479C or JOUR471. Formerly: JOUR479C.

Business and economics reporting is one of the strongest sectors of journalism with lucrative employment opportunities. This class, designed for journalism and non-journalism majors, introduces students to the main economic and business themes that dominate news coverage. Topics will include: corporate money and power in Washington, the ups and downs of the stock market, rising income inequality, the immigration crisis, why we have a trade war with China and technology disruptors. This class will be helpful to students who want to enhance their career opportunities by understanding how the economy works, why globalization is important and how the biggest corporations--including technology companies--have such a big influence on the way we live.

0101	Constance Ford MW 3:00pm - 4:15pm	Seats (Total: 15) KNI 2107	

JOUR472 **Data Journalism**

(Perm req)

Prerequisite: JOUR320 or JOUR360. Jointly offered with: JOUR772. Credit only granted for: JOUR472 or JOUR772.

A practical, skills-based course in the basics of modern data journalism, data literacy and data storytelling. Students will learn to use data visualization, data analysis and other data-driven reporting techniques.

0101	Daniel Trielli Paiva Da Silva Tu 12:30pm - 2:20pm Th 12:30pm - 2:20pm	Seats (Total: 15) KNI 2107 KNI 2107	 Lab
0201	Derek Willis M 2:00pm - 3:50pm W 2:00pm - 3:50pm	Seats (Total: 6) KNI 2105 KNI 2105	 Lab

JOUR475 **Understanding Audiences and Analytics**

(Perm req)

Prerequisite: Student must have completed a university statistics course. Credit only granted for: JOUR479O or JOUR475. Formerly: JOUR479O.

As journalism evolves, it may be more important than ever to understand what were once simply called "audiences" -- who they are, how they consume news, and what that engagement means for them and for society. Students will learn to think critically about news audiences and contemporary issues in audience research.

0101	Ronald Yaros Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 18) ONLINE KNI 2105	

JOUR479P **Special Topics in Data Gathering and Analysis; Computational Text Analytics in Python**

(Perm req)

Special research topics for reporting and writing.

Prerequisite: permission of instructor (nhassan@umd.edu) This course is designed to teach the principles and computational methods of natural language or textual data processing and provide hands-on experience in text analysis using Python. Natural language processing (NLP) is a set of techniques for examining and analyzing text as data. This course investigates the usage of NLP as a set of these techniques, with a particular emphasis on the practical side of NLP-using current NLP methods and libraries in Python in novel and inventive ways. Students will use and expand on existing libraries to solve textual problems, including scikit-learn, pytorch, gensim, spacy, and huggingface.

0101	Naeemul Hassan	Seats (Total: 5)
	M 9:30am - 12:15pm	KNI 1101

JOUR479X **Special Topics in Data Gathering and Analysis; Sports Data Analysis and Visualization**

(Perm req)

Special research topics for reporting and writing.

Prerequisite: JOUR472/JOUR772 or permission of instructor. This course will provide students with replicable methods for analyzing sports data and creating visualizations that help find and illustrate patterns in order to find and tell stories. Using real-world sports data, students will learn to write code to ask and answer questions of it and to describe its meaning.

0101	Derek Willis	Seats (Total: 15)
	TuTh 2:00pm - 3:50pm	KNI 2103

JOUR479Y **Special Topics in Data Gathering and Analysis; Great Works of Investigative Journalism**

(Perm req)

Special research topics for reporting and writing.

In this course, we will read and analyze the great investigative journalism of our time. We will reverse engineer investigative articles in order to identify the author(s) research and reporting methods so that students will be able to use these in their own work. Students will also be required to put into practice several research methods we explore for the midterm and final assignments. The practices will include a wide range of reporting methodologies, including immersion, building and cultivating lists of people (sources) with useful information, creating an original database of unique information and crowdsourcing.

0101	Dana Priest	Seats (Total: 15)
	M 2:30pm - 5:15pm	KNI 3200

JOUR601 **Theories of Journalism and Public Communication**

(Perm req)

Prerequisite: Permission of JOUR-Philip Merrill College of Journalism.

Survey and evaluation of current communication theories. Attention is given to the nature and function of scientific theory, models of communication behavior, the nature of information, social functions of journalism and public communication, attitude change and persuasive communication and theories of language and meaning.

0101	Linda Steiner W 1:00pm - 3:45pm	Seats (Total: 9) KNI 2109

JOUR603 **News Videography**

(Perm req)

Prerequisite: JOUR501 or JOUR502; or permission of JOUR-Philip Merrill College of Journalism. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR347. Credit only granted for: JOUR503 or JOUR603. Formerly: JOUR503.

Introduction to shooting, editing and production of video stories for broadcast and the Web; includes newsgathering in the field.

0101	Alanna Kopania MW 2:00pm - 3:50pm	Seats (Total: 12) TWS 0222A

JOUR604 **Introduction to Multimedia Skills for Graduate Certificate Programs**

(Perm req)

Restriction: Permission of JOUR-Philip Merrill College of Journalism; and must not have completed JOUR504. Credit only granted for: JOUR 604, JOUR504, or JOUR628G. Formerly: JOUR628G. Additional information: This course is for students enrolled in graduate certificate programs in the College of Journalism.

Examine the basics of producing and editing digital photos, video and audio for news. Topics include framing, lighting and other aspects of composition; sequencing, using wide, medium and tight shots; and ethical considerations when collecting sound and visuals.

PCJ1	Nicole Munchel Sa 8:30am - 12:15pm Class time/details on ELMs	Seats (Total: 14) KNI 1101 ONLINE
	Must be in the Multimedia Journalism (GC) program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

JOUR610 **Seminar in Mass Media History**

(Perm req)

Credit only granted for: JOUR610 or JOUR710. Formerly: JOUR710.

Analysis and discussion of the interrelationships between the mass media and society, including various social and cultural elements of modern society; responsibilities of the mass media and the mass communicator.

0101	Mark Feldstein Tu 2:00pm - 4:45pm	Seats (Total: 12) KNI 3200

JOUR620 **Public Affairs Reporting**

(Perm req)

Prerequisite: JOUR501 or JOUR502; or permission of JOUR-Philip Merrill College of Journalism.

Designed to add to and sharpen the skills learned in JOUR501 or JOUR502. It is primarily an introduction to "beat" reporting that allows students to sample the most common new beats while reporting and writing on deadline. Students are required to develop and hone their multimedia skills by reporting in a variety of media.

0101	Christine Harvey TuTh 10:00am - 11:50am	Seats (Total: 12) KNI 2103
0201	Joshua Davidsburg TuTh 10:00am - 11:50am	Seats (Total: 12) TWS 0222B

JOUR625 **Advanced Capital News Service Bureau**

(Perm req)

Prerequisite: JOUR620; and permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR625 or JOUR729. Formerly: JOUR729.

Advanced journalism training. Students report as part of College's Capital News Service program.

0101	James Carroll Contact instructor or department for details.	Seats (Total: 10)
0201	Adrianne Flynn Contact instructor or department for details.	Seats (Total: 10)

JOUR628C **Specialized Topics in News Writing and Reporting; Advanced Howard Center Investigations I**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Advanced journalism training. Students work on investigative projects as part of the College's Howard Center for Investigative Journalism.

0101	Kathy Best	Seats (Total: 5)
	Contact instructor or department for details.	

JOUR628I **Specialized Topics in News Writing and Reporting; Advanced Howard Center Investigations II**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Advanced journalism training. Students work on in-depth investigative projects as part of the College's Howard Center for Investigative Journalism.

0101	Kathy Best	Seats (Total: 5)
	Contact instructor or department for details.	

JOUR628N **Specialized Topics in News Writing and Reporting; Reporting on Journalists Imprisoned Overseas**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620 Students will dip into national security and diplomatic reporting by learning to research the context, laws and international pressure surrounding an individual journalist imprisoned in a particular country. Students will learn how to find sources and conduct interviews with diplomats, experts, reporters and family members living overseas while never leaving College Park.

0101	Dana Priest	Seats (Total: 6)
	M 9:30am - 12:15pm	KNI 3200

JOUR628X **Specialized Topics in News Writing and Reporting; The Art of Interviewing**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. This course will substantially deepen your skills at the most elemental act in journalism knowing how to ask questions that elicit more honest and illuminating answers. You'll learn by doing, watching, and listening -- looking at some of the best interviews ever -- and some of the not so best -- and and analyze the differences. Students will conduct various interviews of their own, watch and critique themselves and their fellow students, and hear from some of the most skilled interviewers in the field today.

0101	Thomas Rosenstiel	Seats (Total: 3)
	W 10:00am - 12:45pm	KNI 3202

JOUR634 **Audio and Podcast Reporting**

(Perm req)

Prerequisite: JOUR660; or permission of Philip Merrill School of Journalism Associate Dean. Jointly offered with: JOUR334. Formerly: JOUR668L.

Students will learn the tools needed to report and produce short- and long-form audio storytelling, including writing, reporting, interviewing, production, editing, hosting and delivery. Field reporting and audio gathering outside of class are required, along with writing and mixing broadcast-quality audio stories. The class will produce a complete newscast on deadline, with live and pre-recorded elements. Various interests in audio reporting are welcome and encouraged.

0101	Steven Drummond Tu 5:30pm - 8:15pm	Seats (Total: 4) KNI 1101

JOUR636 **Studio Production**

(Perm req)

Prerequisite: JOUR603. Credit only granted for: JOUR636, JOUR336, JOUR668L or JOUR368L. Formerly: JOUR668L.

Moves through every production aspect related to studio production. This includes learning how to plan and execute a live studio production featuring camera crews, a floor director, producer, director, technical director, audio and teleprompter. Labs focus on executing a live newscast production. Students will also be able to go on live shots with reporters to run camera/lighting.

0101	Nathaniel Stevens TuTh 4:00pm - 6:00pm	Seats (Total: 2) TWS 0116

JOUR652 **Interactive Design and Development**

(Perm req)

Prerequisite: Master of Journalism students must have taken or be concurrently enrolled in JOUR620; or must have permission of the Philip Merrill College of Journalism. Recommended: Multimedia Journalism certificate students are encouraged to take or be concurrently enrolled in JOUR604. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR652 or JOUR352.

Conceptualize, wireframe, design and build responsive Web pages using HTML, style sheets and other coding tools; work with open source interactive tools and JavaScript libraries to create charts, timelines and maps to tell stories.

0101	Adam Marton W 11:00am - 1:45pm	Seats (Total: 3) KNI 2107
0501	Gagan Nirula Th 5:30pm - 8:15pm	Seats (Total: 1) KNI 1101

PWJ1	Chris Cioffi	Seats (Total: 15)
	Sa 1:30pm - 5:15pm	ONLINE
	Must be in the Multimedia Journalism (GC) program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

JOUR655 **Advanced Online News Bureau**

(Perm req)

Prerequisite: JOUR603 or JOUR620; and JOUR652; or permission of JOUR-Philip Merrill College of Journalism.

Advanced online journalism training. Students work as online reporters, editors and producers for a news site. Students also package copy from the print and broadcast news bureaus.

Prerequisites: JOUR 620 and 652 or equivalent. Contact the instructor to obtain permission. Course shares space with JOUR355.

0101	Adam Marton	Seats (Total: 5)
	Contact instructor or department for details.	
0201	Alexander Pyles	Seats (Total: 4)
	Contact instructor or department for details.	

JOUR657 **Social Media Content Creation, Audience Engagement and Analytics**

(Perm req)

Corequisite: JOUR620; or permission of the department. Credit only granted for: JOUR657, JOUR668D or JOUR368D. Formerly: JOUR668D.

Provides students with an overview of social media best practices for journalists, and will work to develop their skills in social content creation, audience engagement, sourcing and verification and analytics. By the end of this course, students will have the practical skills needed to manage a social media account for themselves or contribute to the management of a news organization's social media presence.

0101	Emma Harris	Seats (Total: 5)
	Tu 12:30pm - 1:45pm Class time/details on ELMs	ONLINE ONLINE

JOUR660 **Broadcast News Writing**

(Perm req)

Prerequisite: JOUR501 or JOUR502; or permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR660 or JOUR760. Formerly: JOUR760.

Descriptive and critical analysis of broadcast news; methods of evaluation of news judgments; decision-making and organizational aspects of the broadcast news industry.

0101	Alison Burns	Seats (Total: 8)	
	MW 10:00am - 11:50am	KNI 2105	

JOUR662 **Broadcast News Producing**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in JOUR661; and (JOUR603 and JOUR660). Jointly offered with: JOUR362. Credit only granted for: JOUR362, JOUR668B, or JOUR662. Formerly: JOUR668B.

Learn and practice the basics of broadcast newscast producing. Design, write, edit and implement a news program.

0102	Cindy Wright	Seats (Total: 1)	
	Tu 7:15pm - 9:15pm	TWS 0117	
	Tu 2:00pm - 6:50pm	TWS 0117	Lab
0104	Cindy Wright	Seats (Total: 1)	
	Tu 7:15pm - 9:15pm	TWS 0117	
	Th 2:00pm - 6:50pm	TWS 0117	Lab

JOUR664 **Advanced Audio and Podcast Reporting**

(Perm req)

Prerequisite: JOUR634; or permission of JOUR-Philip Merrill College of Journalism. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR364.

Students receive professional skills training in the reporting, writing, editing, voicing and production of radio news. Students will be required to do extensive field reporting, along with writing and mixing broadcast-quality radio pieces. They will also participate in other aspects of radio news production, including editing, directing, live interviewing and hosting. By the end of the semester, students will have created all the elements of a complete radio broadcast, including news spots, finished pieces, two-ways and a long-form audio segment. The class will also delve into the history and evolution of radio news and its future in podcasting and other forms.

0101	Robert Little	Seats (Total: 8)	
	W 5:30pm - 8:15pm	KNI 3210	

JOUR667 **Broadcast News Bureau**

(Perm req)

Prerequisite: JOUR661. Jointly offered with: JOUR367, JOUR357.

Advanced broadcast journalism training. Students report as part of the College's Capital News Service program.

Jointly offered with JOUR367.

0101	Melvin Coffee	Seats (Total: 15)
	Contact instructor or department for details.	

JOUR668A **Topics in Broadcasting and Electronic Media; Sports Reporting: Broadcast and Storytelling**

(Perm req)

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR603, JOUR620 and JOUR660. This class will focus on the art of storytelling for television. Students will get practical, hands-on experience in presentation, learning how to master interviewing skills as well as reporting and anchoring with a heavy focus on the details of writing for broadcast. Students will work creatively and collaboratively to understand how to take a story from an idea to an on-air finished product.

0101	Robert Carlin	Seats (Total: 2)
	MW 4:00pm - 5:50pm	TWS 0222A

JOUR668J **Topics in Broadcasting and Electronic Media; Promo Production**

(Perm req)

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR620/JOUR660 or permission of instructor. This class will explore, plan, and execute video promotions for the CNS-TV broadcast, and all the surrounding college of journalism bureaus. It will focus on pre-production, production, and post-production skills that will assist in creating finished video products across multiple projects.

0101	Nathaniel Stevens	Seats (Total: 2)
	Tu 12:00pm - 2:45pm	KNI 1210

JOUR668N **Topics in Broadcasting and Electronic Media; Advanced Photojournalism**

(Perm req)

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR670. This course will provide a deeper dive into the storytelling medium of photojournalism. Students will learn the skills necessary to tell in-depth, long-term stories through the use of still photography. Topics of discussion will include the history of photojournalism, changing approaches to the photo story/photo essay over time, how to approach a variety of potential subject matter and situations, finding long-term photo story projects and organizing images for a variety of digital and traditional formats.

0101	Timothy Jacobsen F 9:00am - 11:45am	Seats (Total: 6) KNI 2107

JOUR668O **Topics in Broadcasting and Electronic Media; Advanced Studio Production**

(Perm req)

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR636 or permission of instructor. This course will take you through every production aspect related to studio production and work as production support for live sports or video game news shows. This includes learning how to plan and execute a live studio production featuring camera crews, a floor director, producer, director, technical director, audio, and teleprompter. It will also include post-production promo pieces for live shows, as well as social media components that are production-related.

0101	Nathaniel Stevens W 4:00pm - 6:45pm	Seats (Total: 1) TWS 0116

JOUR668X **Topics in Broadcasting and Electronic Media; Documentary Filmmaking**

(Perm req)

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR603 and JOUR620/JOUR660. Hands-on independent documentary production. From pre-production to distribution, the class will include field production, pitching, grant writing and more.

0101	Joshua Davidsburg TuTh 2:00pm - 3:50pm	Seats (Total: 4) TWS 0222B

JOUR668Y **Topics in Broadcasting and Electronic Media; Sports Producing**

(Perm req)

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR603 and JOUR660. This class will take an analytical look at sports TV and sports content by deconstructing shows. We will examine the producer's role in creating the look, feel and direction of shows and learn how to choose a lead story, how to "tease" effectively and the importance of identifying and telling good stories. We will watch live televised sporting events to better understand the techniques used by directors and producers. Students will get hands-on experience with BTN2GO and learn all aspects of live game production.

0101	Joseph Yasharoff W 7:00pm - 9:45pm	Seats (Total: 3) KNI 2103

JOUR670 **Photojournalism**

(Perm req)

Prerequisite: JOUR620. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism; and permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR370. Credit only granted for: JOUR368P, JOUR370 or JOUR670. Additional information: Students are required to borrow, rent or purchase a 35mm digital camera. Contact department for camera specifications.

Examining the basics of shooting, editing and storytelling with still photos taken with 35mm digital cameras. Students shoot portraits, feature photos and action shots. Final project is a photo story/essay.

0101	Timothy Jacobsen F 12:00pm - 2:45pm	Seats (Total: 2) KNI 2107

JOUR682 **Sports Reporting and Writing**

(Perm req)

Prerequisite: JOUR620. Jointly offered with: JOUR382. Credit only granted for: JOUR628B, JOUR682 or JOUR382. Formerly: JOUR628B.

Gives students wide-ranging instruction in all aspects of sports reporting and writing, from the history of the craft to its mechanics, including how to report, write, edit and lay out sports stories, incorporating multimedia and interactive elements. Ethics, objectivity, fairness and the future of sports journalism will be discussed.

0101	Kaitlyn Wilson MW 4:00pm - 5:15pm	Seats (Total: 4) KNI 2105

JOUR689E **News Coverage of Specialized Topics; Entertainment, Arts and Culture Reporting**

(Perm req)

Advance training and practice in writing and reporting news in on specialized field of interest.

Prerequisite: JOUR620. Entertainment reporting is much more than just gossip. This course will cover the ins and outs of celebrity interviews, red carpets, theater reviews, diversity in media, freelancing, pitching and narrative writing. Expect to leap out of your comfort zones and take advantage of the DMV arts scene, not to mention hone your national entertainment coverage skills.

0101	David Oliver M 6:00pm - 8:45pm	Seats (Total: 1) KNI 2105

JOUR689F **News Coverage of Specialized Topics; Feature Writing**

(Perm req)

Advance training and practice in writing and reporting news in on specialized field of interest.

Prerequisite: JOUR620. Research and writing feature articles.

0101	DeNeen Brown M 3:00pm - 5:45pm	Seats (Total: 1) KNI 3202

JOUR689I **News Coverage of Specialized Topics; Investigative Reporting**

(Perm req)

Advance training and practice in writing and reporting news in on specialized field of interest.

Prerequisite: JOUR620. Introduces students to the skills and techniques of investigative reporting. Students will learn how to report, write and publish investigative stories.

0101	James Risen M 2:00pm - 4:45pm	Seats (Total: 3) KNI 2103

JOUR689L **News Coverage of Specialized Topics; Lynching and the Press**

(Perm req)

Advance training and practice in writing and reporting news in on specialized field of interest.

Prerequisite: JOUR620 or permission of instructor. This course will study how the news media covered lynching from 1789 to 1963 and will contribute to an ongoing academic research project and article. Students will classify and analyze hundreds of news articles toexplore how the media framed lynching events, portrayed lynching victims, and described he role of law enforcement at lynching events. During the course of the semester, students will engage in historical research, content analysis, database creation and management, and computational textual analysis.

0101	Rob Wells Th 9:00am - 10:50am Class time/details on ELMs	Seats (Total: 3) KNI 1101 ONLINE

JOUR689M **News Coverage of Specialized Topics; The Future of Football**

(Perm req)

Advance training and practice in writing and reporting news in on specialized field of interest.

Prerequisite: JOUR620. Participation in youth tackle football is declining. According to one study, it has fallen 20 percent for children ages 6 to 12 in recent years. What does that say about the future of football for kids and about the future of all football? In this course, we'll interview youth players and parents around the country to hear what football means in communities that are affluent and poor, urban and rural, predominantly white, black and Hispanic. We'll also include the voices of youth sports physicians, educators, sociologists, ethicists and others.

0101	Mark Hyman M 1:00pm - 3:45pm	Seats (Total: 2) KNI 1101

JOUR698 **Special Problems in Communication**

(Perm req)

Independent study in area of the student's interest.

Contact department for information to register for this course.

JOUR698C **Special Problems in Communication; Comprehensive Examination Preparation**

Independent study in area of the student's interest.

This class provides the steps for Merrill College doctoral students to prepare and begin taking their comprehensive examinations.

0101	Rob Wells	Seats (Total: 1)	
	M 3:00pm - 4:00pm	KNI 2214	
	Class time/details on ELMs	ONLINE	

JOUR702 **Journalism Law and Ethics**

(Perm req)

Restriction: Must be in one of the following programs (Journalism - Master (Master's); Journalism Studies (Doctoral)) ; or permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR400, JOUR 600, JOUR700, or JOUR 702.

An examination of the legal rights and ethical problems and constraints of mass media, including libel, privacy, copyright, monopoly and contempt.

0101	Christoph Mergerson	Seats (Total: 36)	
	Tu 2:00pm - 3:15pm	ONLINE	
	Class time/details on ELMs	ONLINE	

JOUR772 **Data Journalism**

(Perm req)

Prerequisite: Must have completed JOUR502, or students who have taken courses with comparable content may contact the department. Jointly offered with: JOUR472. Credit only granted for: JOUR772 or JOUR472.

A practical, skills-based course in the basics of modern data journalism, data literacy and data storytelling. Students will learn to use data visualization, data analysis and other data-driven reporting techniques.

0201	Derek Willis	Seats (Total: 12)	
	M 2:00pm - 3:50pm	KNI 2105	
	W 2:00pm - 3:50pm	KNI 2105	Lab
0301	Ryan Little	Seats (Total: 15)	
	TuTh 3:20pm - 5:10pm	ONLINE	

JOUR779P **Seminar in Research Problems; Computational Text Analytics in Python**

(Perm req)

Methods of research design and analysis in specialized areas of journalism and public communication research.

Prerequisite: permission of instructor (nhassan@umd.edu) This course is designed to teach the principles and computational methods of natural language or textual data processing and provide hands-on experience in text analysis using Python. Natural language processing (NLP) is a set of techniques for examining and analyzing text as data. This course investigates the usage of NLP as a set of these techniques, with a particular emphasis on the practical side of NLP-using current NLP methods and libraries in Python in novel and inventive ways. Students will use and expand on existing libraries to solve textual problems, including scikit-learn, pytorch, gensim, spacy, and huggingface.

0101	Naeemul Hassan M 9:30am - 12:15pm	Seats (Total: 10) KNI 1101

JOUR798 **Master's Professional Fieldwork**

(Perm req)

Research for and preparation of news articles or programs for use in the media. Analysis of fieldwork experience using communication theory and research results. Fieldwork may be done independently or as an internship. Repeatable to a maximum of six credits.

Contact department for information to register for this course.

JOUR799 **Master's Thesis Research**
Contact department for information to register for this course.

JOUR800 **Introduction to Doctoral Study in Journalism and Public Communication**

(Perm req)

Credit only granted for: JOUR700 or JOUR800. Formerly: JOUR700.

Basic skills in journalism and public communication research.

0101	Krishnan Vasudevan W 9:00am - 11:45am	Seats (Total: 10) KNI 2109

JOUR888 **Doctoral Professional Field Work**

Critical analysis of a phase of a professional field in journalism and public communication. Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

JOUR889 **Doctoral Tutorial in Journalism and Public Communication**

Individual research in journalism and public communication.

Contact department for information to register for this course.

JOUR898 **Pre-Candidacy Research**
Contact department for information to register for this course.

JOUR899 **Doctoral Dissertation Research in Journalism and Mass Communication**

(Perm req)

Contact department for information to register for this course.

JWST Jewish Studies Fall 2023

JWST141 **American Jewish Experience**

Cross-listed with: HIST106. Credit only granted for: HIST106 or JWST141.

History of the Jews in America from Colonial times to the present. Emphasis on the waves of migration from Germany and Eastern Europe; the changing nature of the American Jewish community and its participation in American social, economic, and political life.

0101	Marsha Rozenblit	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	KEY 0116

JWST171 **Is Judaism a Religion?**

Cross-listed with: RELS171. Credit only granted for: JWST171 or RELS171.

Jewish identity can be framed in terms of ethnicity, culture, and religious practice, but also in terms of more contemporary social constructions including social action, political engagement, and intellectual pursuit. In the context of such diverse social and individual frames, what does it mean to identify Judaism as a religion? Attention to Jewish society in historical and global perspective will provide a backdrop for a particular focus on contemporary Jews in the United States and Israel.

0101	Maxine Grossman	Seats (Total: 40)
	MW 3:30pm - 4:45pm	TWS 0223

JWST219C **Special Topics in Jewish Studies; Contemporary Israel: History and Society**
Contact department for information to register for this course.

JWST219D **Special Topics in Jewish Studies; Women in Israel**
Contact department for information to register for this course.

JWST219E **Special Topics in Jewish Studies; Writing Israel**
Contact department for information to register for this course.

JWST262 **Introduction to the Hebrew Bible/Old Testament**

Cross-listed with: ENGL262, HEBR298B. Credit only granted for: JWST262, HEBR298B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

0101	Matthew Suriano MW 2:00pm - 3:15pm	Seats (Total: 25) SQH 1103	

JWST274 **Jerusalem in Antiquity: The History of Sacred Space in a Holy City**

Cross-listed with: RELS274. Credit only granted for: JWST274, RELS274, JWST289J or RELS289J. Formerly: JWST289J, RELS289J.

Examines the complex history of Jerusalem's status as a holy city, with a focus on constructions of sacred space in Judaism, Christianity, and Islam.

0101	Matthew Suriano MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 20) TWS 0320 ONLINE	 Discussion
0102	Matthew Suriano MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) TWS 0320 ONLINE	 Discussion
0103	Matthew Suriano MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 20) TWS 0320 ONLINE	 Discussion
0104	Matthew Suriano MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 20) TWS 0320 ONLINE	 Discussion

JWST289E **Civil Discourse or Urban Riot: Why Cities Don't (Often) Explode**

Cross-listed with: HIST135. Credit only granted for: HIST135 or JWST289E.

An examination of the mechanisms that promote peaceful co-existence in urban societies and a discussion of how and why city streets sometimes become violent.

0101	Bernard Cooperman MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 23) ESJ 0215 KEY 0100	 Discussion
0102	Bernard Cooperman MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 23) ESJ 0215 KEY 0100	 Discussion
0103	Bernard Cooperman MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 23) ESJ 0215 KEY 0100	 Discussion

JWST319B **Special Topics in Jewish Studies; Arab-Israeli Relations**

Topics in Jewish Studies.

Contact department for information to register for this course.

JWST319E **Special Topics in Jewish Studies; Literature of the Shoah**

Topics in Jewish Studies.

Contact department for information to register for this course.

JWST319V **Special Topics in Jewish Studies; Religious and Political Transformations in Modern Jewish History**

Topics in Jewish Studies.

Cross-listed with HIST329F. Credit only granted for HIST329F or JWST319V. Analysis of the social, cultural, and political forces that led to the emancipation of the Jews--the granting to them of equal rights with all other inhabitants of the countries in which they lived-- and the integration of a once-detested ethnic-religious group into European society. The focus will be Europe, where most Jews lived in the period between 1650 and1870.

0101	Marsha Rozenblit	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	KEY 0100

JWST319Y **Archaeological Methods and Practice**

Prerequisite: ANTH240, ARTH200, or CLAS180. Cross-listed with: ANTH305, ARTH305, CLAS305. Credit only granted for: ANTH305, ARTH305, CLAS305, or JWST319Y.

A team-taught, interdisciplinary course discussing theories, methods, and ethical issues in the practice of archaeology.

0101	Jorge Bravo	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	WDS 1114

JWST334 **Mizrahi Identity in Israel**

Cross-listed with: ISRL330, HIST377. Credit only granted for: JWST319D, JWST334, HIST377, HIST329Z, ISRL329M, or ISRL330. Formerly: ISRL329M.

It is impossible to understand Israeli society today without examining the Mizrahi experience. Despite the common misconception that Israel is predominantly made up of Jews from European origin, the fact of the matter is that Jews of Mizrahi origin, whose parents and grandparents immigrated to Israel from the Middle East and North Africa, represent a major part of the Israeli population. Moreover, Ashkenazi-Mizrahi relations continue to be a major source of tension in Israeli politics, and issues of race continue to come up on social media and polarize the Israeli society. This course brings to light narratives of Mizrahi identity in Israel and explores the trajectory of the Mizrahi struggle for equality and against racism through its various milestones: the 1959 Wadi Salib Revolt, the Black Panthers Movement in the 1970s, the emergence of the Israeli Sephardi-Orthodox party Shas, and the new wave of Mizrahi activism in the 21st century.

0101	Shay Hazkani MW 11:00am - 12:15pm	Seats (Total: 20) KEY 0116

JWST369A **Special Topics in Study Abroad III; The Holocaust: 20th Century Jewish Thought**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

JWST408 **Honors Seminar in Jewish Studies**

(Perm req)

An in-depth exploration of a theme in Jewish history, literature, culture or thought. Course subject and readings will vary from year to year, but will generally cut across periods, locations, or disciplines. Students are expected to engage the course material critically and to use the seminar as an opportunity to develop an independent research agenda.

Contact department for information to register for this course.

JWST409 **Research Seminar in Jewish Studies**

(Perm req)

A capstone course for Jewish Studies. Guides students through advanced source material and subject matter, research skills, and presentation techniques. A substantive paper based on independent research and analysis is one expected outcome.

Contact department for information to register for this course.

JWST418 **Honors Thesis Research in Jewish Studies**

(Perm req)

Guided research on a thesis under the supervision of the Jewish Studies faculty.

Contact department for information to register for this course.

JWST429C **Advanced Topics in Jewish Studies; Personal Stories of Migrations: (Re)Creating Communities Amidst Dramatic Change**

Special topics at an advanced level for Jewish Studies. Primarily intended for majors and graduate students.

Cross-listed with JWST648C and HIST428E. Credit only granted for JWST429C, JWST648C, or HIST428E. As migrants struggle to establish themselves in new social, economic, and political environments they must cope with the trauma that drove them from their homes and with the culture shock of their new lands. They require resilience to reinvent themselves, to seize new opportunities, and to build new lives and communities. We will use oral histories, autobiographical writings, as well as paintings, photos and other visual expressions of self, to explore the experience of Jewish immigrants to North America. Personal stories will give us new insights into the long history of Jewish communities in North America.

0101	Vardit Lightstone M 4:00pm - 6:30pm	Seats (Total: 15) HBK 0108

JWST459 **Readings in Medieval Hebrew**

(Perm req)

Readings and analysis of Hebrew texts and literature from the Middle Ages. Language of instruction in English; all texts in Hebrew.

Contact department for information to register for this course.

JWST468 **Readings in the Hebrew Bible**

(Perm req)

Readings in the Hebrew text of the Bible. Emphasis in close reading, grammar analysis, and modern interpretations of the Bible. Language of instruction English; all texts in Hebrew.

Contact department for information to register for this course.

JWST469 **Readings in Rabbinic Hebrew**

(Perm req)

Readings in classical rabbinic texts and related corpora. Emphasis on grammar and reading skills as well as critical analysis of the material. Language of instruction: English; all texts in original language.

Knowedge of Hebrw and/or permission of Instructor. Readings in Classical Rabbinic Texts and related corpora. Emphasis on grammar and reading skills as well as critical analysis of the material. Language of instruction: English; all texts

Contact department for information to register for this course.

JWST469C **Readings in Rabbinic Hebrew; What Did the Rabbis Think the Bible Really Means**

Readings in classical rabbinic texts and related corpora. Emphasis on grammar and reading skills as well as critical analysis of the material. Language of instruction: English; all texts in original language.

Prerequisite: Course will be taught in English, with readings in Hebrew. Students should have at least first year Hebrew or equivalent. Cross-listed with HEBR498B. Credit only granted for JWST469C or HEBR498B. Sacred texts like the Hebrew bible challenge human understanding the voice of the divine, they demand our constant study, interpretation and reinterpretation. Jewish scholars have been engaged in this process, known as exegesis, for many centuries, and have used many different methods to make the Bible give up its mysteries. In this course we will use the method of close reading to watch as rabbis struggled with, and argued over, biblical passages in order to construct Jewish law and Jewish rationalist and mystical theologies. We will examine issues ranging from vegetarianism to messianism, gender to eros, the purpose of life, the holiness of Jerusalem to the legitimacy of Halacha. The course is based on close text study of the biblical text and rabbinic commentaries in Hebrew.

0101	Bernard Cooperman	Seats (Total: 6)
	MW 10:00am - 10:50am	WDS 1131
	F 10:00am - 10:50am	ONLINE

JWST478 **Readings in Modern Hebrew**

(Perm req)

Variable topics in Modern Hebrew Literature.

Contact department for information to register for this course.

JWST499 **Independent Study in Jewish Studies; Independent Study in Jewish Studies**

(Perm req)

Prerequisite: permission of department.

Contact department for information to register for this course.

JWST499A **Independent Study in Jewish Studies; The Archaeology of Jerusalem**

(Perm req)

0101	Matthew Suriano	Seats (Total: 5)
	Contact instructor or department for details.	

JWST609 **Supervised Instruction-Practicum in Jewish Studies**

(Perm req)

Supervised instruction or supervised practicum in Jewish Studies. Intended for graduate students whose course work includes field work or classroom teaching.

Contact department for information to register for this course.

JWST619 **Directed Readings in Jewish Studies**

(Perm req)

Independent Study in Jewish Studies. Readings and papers.

Contact department for information to register for this course.

JWST648 **Readings in Jewish History**

(Perm req)

Focus on the central issues in Jewish history as well as the key historiographical debates on those issues.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Focus on the central issues in Jewish history as well as the key historiographical debates on those issues.

Contact department for information to register for this course.

JWST648C **Readings in Jewish History; Personal Stories of Migrations: (Re)Creating Communities Amidst Dramatic Change**

Focus on the central issues in Jewish history as well as the key historiographical debates on those issues.

Cross-listed with JWST429C and HIST428E. Credit only granted for JWST429C, JWST648C, or HIST428E. As migrants struggle to establish themselves in new social, economic, and political environments they must cope with the trauma that drove them from their homes and with the culture shock of their new lands. They require resilience to reinvent themselves, to seize new opportunities, and to build new lives and communities. We will use oral histories, autobiographical writings, as well as paintings, photos and other visual expressions of self, to explore the experience of Jewish immigrants to North America. Personal stories will give us new insights into the long history of Jewish communities in North America.

0101	Vardit Lightstone	Seats (Total: 15)
	M 4:00pm - 6:30pm	HBK 0108

JWST658 **Readings in Jewish Thought and Culture**

(Perm req)

Examines key issues in the development of Jewish thought and culture.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Examines key issues in the development of Jewish thought and culture.

Contact department for information to register for this course.

JWST678 **Readings in Jewish Literature**

(Perm req)

Examines selected themes or literatures in the development of Jewish literary traditions.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Examines selected themes on literatures in the development of Jewish literary traditions.

Contact department for information to register for this course.

JWST799 **Masters Thesis Research**

(Perm req)

Research and Writing the Masters Thesis in Jewish Studies.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES Kinesiology Fall 2023

KNES120A **Fitness Walking**

Credit only granted for: KNES120 or KNES120A. Formerly: KNES120A.

This is a co-ed physical activity course for beginning fitness walking.

Students must pay a $40 instructional materials fee.

0101	Andrew Ginsberg	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
	Restricted to students in KNES major (08351).		
0102	Andrew Ginsberg	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
	Restricted to students in KNES major (08351).		

KNES131N **Physical Education Activities: Coed; Jogging (Beginning)**

Attendance is required of all students beginning the first day of class. Credit only granted for KNES131V or KNES131N. Students must pay a $40 instructional materials fee. Beginning jogging prepares students to safely jog for 30 minutes continuously or to cover a 5K distance by the end of the semester.

0101	Andrew Ginsberg	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
0102	Andrew Ginsberg	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab

KNES137N **Physical Education Activities: Coed; Golf (Beginning)**

Attendance is required the first day of class. Schedule adjustment is the first week of class only. Students must pay a $40 instructional materials fee. Restrictred to students in KNES major (08351).

0101	Jeff Maynor	Seats (Total: 24)	
	Meets August 28, 2023 - October 17, 2023		
	MW 10:00am - 12:00pm	GLF 1102	Lab

KNES137O **Physical Education Activities: Coed; Golf (Intermediate)**

Attendance is required the first day of class. Schedule adjustment is the first week of class only. Students must pay a $40 instructional materials fee. Restrictred to students in KNES major (08351).

0101	Jeff Maynor	Seats (Total: 24)	
	Meets August 28, 2023 - October 17, 2023		
	MW 12:00pm - 2:00pm	GLF 1102	Lab

KNES140R **Physical Education Activities: Coed; Trampoline (Beginning)**

Attendance is required on the first day of class. Scheduled adjustment is the first week of classes only. Students must pay a $40.00 instructional materials fee. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 90 credits.

0201	Joshua Montfort	Seats (Total: 24)	
	Meets October 18, 2023 - December 11, 2023		
	TuTh 10:00am - 12:00pm	SPH 1120	Lab

KNES140V **Physical Education Activities: Coed; Tumbling & Balancing (Beginning)**

Attendance is required on the first day of class. Scheduled adjustment is the first week of classes only. Students must pay a $40.00 instructional materials fee. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 90 credits.

0101	Joshua Montfort	Seats (Total: 24)	
	Meets August 28, 2023 - October 17, 2023		
	TuTh 10:00am - 12:00pm	SPH 1120	Lab

KNES144Q **Physical Education Activities: Coed; Martial Arts, Karate (Beginning)**

Attendance is required of all students beginning the first day of class. Students must pay a $40 instructional materials fee.

0101	Kenneth Klotz	Seats (Total: 30)	
	MW 10:00am - 11:50am	SPH 0107	Lab
	Restricted to students in KNES major (08351).		

KNES144T **Physical Education Activities: Coed; Self-Defense (Beginning)**

Attendance is required of all students beginning the first day of class. Students must pay a $40 instructional materials fee.

0101	Kenneth Klotz	Seats (Total: 30)	
	MW 8:00am - 9:50am	SPH 0107	Lab
	Restricted to students in KNES major (08351).		

KNES153 **Aquatic High Intensity Interval Training Fitness**

Recommended: Ability to perform high intensity exercises in an aquatic environment. Additional information: Students are not required to be strong swimmers to enroll in this course. All class activities will take place in shallow water (less than 5ft) or on the pool deck.

Aquatic HIIT Fitness is designed to lead students through a robust workout in a shallow water environment. Throughout the course, students will increase their level of fitness, build muscle and experience a different type of workout.

Attendance is required of all students beginning the first day of class. Schedule adjustment is the first week of classes only. Students must pay a $40 instructional materials fee. Restricted to KNES majors, non-majors can go onto a holdfile.

0201	Natalie Taylor **Meets October 18, 2023 - December 11, 2023** TuTh 12:00pm - 1:50pm	Seats (Total: 22) ERC B0120	

KNES154N Physical Education Activities: Coed; Swimming (beginning)

Attendance is required of all students beginning the first day of class. Schedule adjustment is the first week of classes only. Students must pay a $40 instructional materials fee. Restricted to KNES majors, non-majors can go onto a holdfile.

0101	Ashley David, Stephanie Draminski **Meets August 28, 2023 - October 13, 2023** MW 12:00pm - 1:50pm	Seats (Total: 22) ERC B0120	

KNES157N Physical Education Activities: Coed; Weight Training (beginning)

Attendance is required the first day of class. Schedule adjustment is the first week of class only. Students must pay a $40 instructional materials fee.

0101	Jo Zimmerman **Meets August 28, 2023 - October 17, 2023** Contact instructor or department for details. MW 11:00am - 12:50pm *Restricted to students in KNES major (08351).*	Seats (Total: 25) SPH 0103	Lab
0201	Jo Zimmerman **Meets October 18, 2023 - December 11, 2023** Contact instructor or department for details. MW 11:00am - 12:50pm *Restricted to students in KNES major (08351).*	Seats (Total: 25) SPH 0103	Lab

KNES161T Physical Education Activities: Coed; Yoga

Attendance is required of all students beginning the first day of class. Schedule adjustment is the first week of classes only. Students must pay a $40 instructional materials fee.

0101	Kate Shin **Meets August 28, 2023 - October 17, 2023** TuTh 11:00am - 12:50pm *Restricted to students in KNES major (08351).*	Seats (Total: 40) SPH 0107
0201	Kate Shin **Meets October 18, 2023 - December 11, 2023** TuTh 11:00am - 12:50pm *Restricted to students in KNES major (08351).*	Seats (Total: 40) SPH 0107

KNES200 Introduction to Kinesiology

Restriction: Must be a Kinesiology major within first 2 semesters; or must not be in Kinesiology program and have less than 45 credits. Credit only granted for: KNES200 or KNES201.

Kinesiology is the interdisciplinary study of physical activity that includes seven sub-disciplines: 1) exercise physiology; 2) biomechanics; 3) sport psychology; 4) motor development; 5) motor control; 6) sport history; and 7) sport sociology. This course will examine these areas of study within Kinesiology from scientific and applied perspectives.

0101	Andrea Liberto, Kai Wu Tu 9:30am - 10:45am Class time/details on ELMs *Restricted to KNES major only with 30 credit hours or less.*	Seats (Total: 30) SPH 0308 ONLINE
0102	Andrea Liberto, Kai Wu Tu 11:00am - 12:15pm Class time/details on ELMs *Restricted to KNES major only with 30 credit hours or less.*	Seats (Total: 30) SPH 1302 ONLINE
0103	Andrea Liberto, Kai Wu Th 9:30am - 10:45am Class time/details on ELMs *Restricted to KNES major only with 30 credit hours or less.*	Seats (Total: 30) SPH 0308 ONLINE

0104	Kai Wu, Andrea Liberto Th 11:00am - 12:15pm Class time/details on ELMs *Restricted to any students with 45 credit hours or less.*	Seats (Total: 30) SPH 1302 ONLINE	

KNES201 **Kinesiological Principles of Physical Activity**

Corequisite: Any physical activity course, e.g., KNES 100-190; or permission of SPHL-Kinesiology department. Restriction: Must be in a major in SPHL-School of Public Health. Credit only granted for: KNES200 or KNES201.

An introduction to Kinesiology, the study of human movement, through the experience of learning a specific motor skill or being engaged in physical activity. Emphasis on the theories and knowledge underlying the learning and performance of all motor and sport skills.

KNES Majors Only.

0201	Emma Powell **Meets October 18, 2023 - December 11, 2023** Class time/details on ELMs	Seats (Total: 15) ONLINE	

KNES214 **Science and Methods of Personal Fitness Instruction**

Credit only granted for: KNES214 or KNES210 and KNES211, or KNES210 and KNES212, or KNES289N. Formerly: KNES210/KNES211, KNES210/KNES212, and KNES289N.

Basic concepts of human anatomy, exercise physiology, applied kinesiology, nutrition and the physiology of exercise training. Includes the CORE knowledge required for the American Council on Exercise (ACE) Personal Trainer certification.

0101	Rosemary Lindle Class time/details on ELMs M 9:00am - 10:50am	Seats (Total: 25) ONLINE SPH 0103	Lab
0102	Rosemary Lindle Class time/details on ELMs W 9:00am - 10:50am	Seats (Total: 25) ONLINE SPH 0103	Lab

KNES225 **Hoop Dreams: Black Masculinity and Sport**

Credit only granted for: KNES289R OR KNES225. Formerly: KNES289R.

Has sport disadvantaged African American males? This course critically examines sport as a site where notions of black masculinity are publicly debated, critiqued, challenged, celebrated, and also transformed. Utilizing an interdisciplinary approach, this course explores how sport has been invoked across the political and ideological spectrum to interrogate a number of issues impacting the life chances of young, African Americans males including educational attainment, poverty, social mobility, racism, cultural production, and notions of masculinity.

0101	Ronald Mower MW 4:00pm - 5:15pm	Seats (Total: 48) BPS 0283	

KNES226 **The Cybernetic Human**

Credit only granted for: KNES289W OR KNES226. Formerly: KNES289W.

Can the profound and rapid technological advances experienced in the 21st century change what it means to be human or the nature of humanity? Emergent technologies, new materials, increased computer power, engineering innovations, and groundbreaking work in the sciences of cognition and action provide myriad opportunities for repairing and enhancing the human body and brain. Examines the ethical, social, and technological implications of an increasing synergism of technology and the body in sports and the arts, at work or home, rehabilitating the body and the brain, and society at large.

0101	Tim Kiemel MF 1:00pm - 1:50pm W 11:00am - 11:50am	Seats (Total: 20) SPH 1312 SPH 0303	 Discussion
0102	Tim Kiemel MF 1:00pm - 1:50pm W 12:00pm - 12:50pm	Seats (Total: 20) SPH 1312 SPH 0303	 Discussion
0103	Tim Kiemel MF 1:00pm - 1:50pm W 1:00pm - 1:50pm	Seats (Total: 20) SPH 1312 SPH 0303	 Discussion
0104	Tim Kiemel MF 1:00pm - 1:50pm W 2:00pm - 2:50pm	Seats (Total: 20) SPH 1312 SPH 1303	 Discussion

KNES260 **Science of Physical Activity and Cardiovascular Health**

Course details (1) the public health importance of and the processes underlying cardiovascular disease, (2) the risk factors for cardiovascular disease and the methods whereby they were identified, and (3) the principles of the scientific evidence supporting the use of physical activity to prevent cardiovascular disease.

0101	James Hagberg MW 12:00pm - 12:50pm M 9:00am - 9:50am	Seats (Total: 22) SPH 1301 SPH 0125	 Discussion
0102	James Hagberg MW 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 22) SPH 1301 SPH 0125	 Discussion

KNES265 **Mathematical, Physical, & Statistical Basis of Kinesiology**

Credit only granted for: KNES265 or KNES289P. Formerly: KNES289P.

Mathematical, physical, and statistical foundations for human movement quantification, analysis, and evaluation. Upon successful completion, this course is expected to better prepare students for the science Core courses, such as biomechanics, exercise physiology, and motor control, that are required for Kinesiology majors.

0101	Jae Kun Shim Class time/details on ELMs	Seats (Total: 30) ONLINE

KNES282 **Basic Care and Prevention of Athletic Injuries**

Restriction: Must be in a major within the SPHL-Kinesiology department.

Theoretical and practical foundations of the prevention, treatment and rehabilitation of athletically related injuries. Topics include: physical conditioning, preventive taping, recognition of injuries, first aid and CPR.

KNES Majors only.

0101	Joanne Klossner TuTh 2:00pm - 3:15pm *This section is for KNES Majors Only.*	Seats (Total: 40) CCC 1200

KNES285 **History of Physical Culture, Sport, & Science in America**

Restriction: Restricted to majors or non-majors with less than or equal to 60 credits. Credit only granted for: KNES285 or KNES293.

Examines the history of physical culture in America, focusing on the period from the end of the Civil War to the Cold War. Physical culture refers to a broad range of movement practices including sport, play, rehabilitative exercise, health and fitness training, and recreation and leisure. More specifically, we challenge the idea that historical physical culture practices--and the scientific processes from which they were derived--were 'neutral' or 'objective'; rather, we explore the cultural, social, political, and economic contexts shaping physical culture knowledge, study, structures, and policies across American history. The goal is for you to learn and apply techniques of historical analysis to develop a critical understanding of how knowledge about, and practices of, physical culture supported a particular social order via the construction of difference, norms, and/or hierarchies, and ultimately contributed to some of the inequalities that endure today.

0101	Shannon Jette MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 ATL 1434	Discussion
0102	Shannon Jette MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 18) SPH 1312 ATL 1434	Discussion
0103	Shannon Jette MW 10:00am - 10:50am W 3:00pm - 3:50pm *This section is restricted to incoming students in Kinesiology.*	Seats (Total: 18) SPH 1312 ATL 1434	Discussion
0104	Shannon Jette MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 18) SPH 1312 PLS 1111	Discussion
0105	Shannon Jette MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 18) SPH 1312 PLS 1158	Discussion
0106	Shannon Jette MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 18) SPH 1312 PLS 1111	Discussion
0107	Shannon Jette MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 PLS 1111	Discussion

0108	Shannon Jette MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 18) SPH 1312 PLS 1111	Discussion
	This section is restricted to incoming students in Kinesiology.		
FC01	Tori Justin TuTh 4:30pm - 5:45pm	Seats (Total: 35) ATL 2428	
	Restricted to students in Freshmen Connection.		

KNES286 **Empowering Healthy Physical Activity**

Learn evidence-based techniques that health professionals use to promote physical activity programs that meet the needs of diverse populations. Develop and implement an intervention plan targeting a specific population.

0101	Andrea Liberto TuTh 2:00pm - 3:15pm	Seats (Total: 24) SPH 0121	

KNES287 **Sport and American Society**

Recommended: Minimum grade of C- in KNES285.

Sport will be related to such social problems as delinquency, segregation, collective behavior, and leisure; to social processes such as socialization, stratification, mobility, and social control; and to those familiar social institutions the family, the school, the church, the military, the economy, the polity, and the mass media.

Restricted to majors or non-majors with less than or equal to 45 credits.

0101	David Andrews MW 2:00pm - 2:50pm M 8:00am - 8:50am	Seats (Total: 18) JMZ 0220 PLS 1158	Discussion
0102	David Andrews MW 2:00pm - 2:50pm M 9:00am - 9:50am	Seats (Total: 18) JMZ 0220 PLS 1158	Discussion
0103	David Andrews MW 2:00pm - 2:50pm M 10:00am - 10:50am	Seats (Total: 18) JMZ 0220 PLS 1158	Discussion
0104	David Andrews MW 2:00pm - 2:50pm M 11:00am - 11:50am	Seats (Total: 18) JMZ 0220 PLS 1111	Discussion

0105	David Andrews MW 2:00pm - 2:50pm W 8:00am - 8:50am	Seats (Total: 18) JMZ 0220 ATL 2416	 Discussion
0106	David Andrews MW 2:00pm - 2:50pm W 9:00am - 9:50am	Seats (Total: 18) JMZ 0220 ATL 1434	 Discussion
FC01	Brandon Wallace MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) SPH 1302	

KNES289 **Topical Investigations**

(Perm req)

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES300 **Biomechanics of Human Motion**

Prerequisite: Minimum grade of C- in BSCI201; and minimum grade of C- in MATH113 or higher. Recommended: KNES265 or PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

The study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency, sports, the performance of a typical individual and the influence of growth and development upon motor performance.

Students must pay a $75 lab fee.

0101	Ross Miller MW 3:00pm - 4:15pm Tu 8:00am - 9:50am	Seats (Total: 12) SPH 1312 SPH 0223	 Lab
0102	Ross Miller MW 3:00pm - 4:15pm Tu 10:00am - 11:50am	Seats (Total: 12) SPH 1312 SPH 0223	 Lab
0103	Ross Miller MW 3:00pm - 4:15pm Tu 12:00pm - 1:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Lab

0104	Ross Miller MW 3:00pm - 4:15pm Tu 2:00pm - 3:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Lab
0105	Ross Miller MW 3:00pm - 4:15pm Th 8:00am - 9:50am	Seats (Total: 12) SPH 1312 SPH 0223	 Lab
0106	Ross Miller MW 3:00pm - 4:15pm Th 10:00am - 11:50am	Seats (Total: 12) SPH 1312 SPH 0223	 Lab
0107	Ross Miller MW 3:00pm - 4:15pm Th 12:00pm - 1:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Lab
0108	Ross Miller MW 3:00pm - 4:15pm Th 2:00pm - 3:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Lab

KNES300H **Biomechanics of Human Motion**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI201; and minimum grade of C- in MATH113 or higher. Recommended: KNES265 or PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

The study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency, sports, the performance of a typical individual and the influence of growth and development upon motor performance.

Restricted to students who have been admitted in the Kinesiology Honors program. Students must pay a $75 lab fee.

0101	Ross Miller MW 3:00pm - 4:15pm Contact instructor or department for details.	Seats (Total: 4) SPH 1312	

KNES305 **Principles & Application of Exercise Rehabilitation**

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from (KNES300, KNES350, KNES360, KNES370, KNES385). Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES498T or KNES305. Formerly: KNES498T.

In-depth analysis of the basic principles of rehabilitation and exercise programming for common injuries encountered in a clinical setting. Basic assessment techniques, ranges of motion, muscular anatomy, rehabilitative protocols, and exercise modalities are a major focus.

0101	Larry Plotkin	Seats (Total: 30)
	TuTh 8:00am - 9:15am	SPH 0308

KNES305H **Principles & Application of Exercise Rehabilitation**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from (KNES300, KNES350, KNES360, KNES370, KNES385). Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES498T or KNES305. Formerly: KNES498T.

In-depth analysis of the basic principles of rehabilitation and exercise programming for common injuries encountered in a clinical setting. Basic assessment techniques, ranges of motion, muscular anatomy, rehabilitative protocols, and exercise modalities are a major focus.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Larry Plotkin	Seats (Total: 3)
	TuTh 8:00am - 9:15am	SPH 0308

KNES306 **Prosthetics for Limb Amputations**

Prerequisite: Minimum grade of C- in BSCI201, BSCI202, and KNES300. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES306 or KNES498W. Formerly: KNES498W.

Introduction to the science of prosthetics and the artificial devices that are designed, developed and fit to replace the missing body part or parts lost through trauma, disease or congenital conditions.

0101	Michelle Jamin	Seats (Total: 32)
	W 5:00pm - 7:30pm	SPH 0307

KNES320 **Physiological Basis of Physical Activity and Human Health**

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202. Restriction: Must be in Public Health Science program. Credit only granted for: KNES360 or KNES320.

A study of the responses and chronic adaptations to physical activity and exercise, with particular emphasis on the interaction between human health and physical activity. The laboratory component of course will focus on the assessment of physical activity and measurement of physiological adaptations to exercise. Students are expected to gain an understanding and appreciation for the benefits of physical activity and exercise in the context of public health.

Students must pay a $75 lab fee.

0101	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm M 12:00pm - 1:50pm	ONLINE SPH 1312 SPH 0125	 Lab
	Restricted to College Park students in the Public Health Science major.		
0102	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm M 2:00pm - 3:50pm	ONLINE SPH 1312 SPH 0125	 Lab
	Restricted to College Park students in the Public Health Science major.		
0103	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm W 8:00am - 9:50am	ONLINE SPH 1312 SPH 0125	 Lab
	Restricted to College Park students in the Public Health Science major.		
0104	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm W 10:00am - 11:50am	ONLINE SPH 1312 SPH 0125	 Lab
	Restricted to College Park students in the Public Health Science major.		
0105	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm W 12:00pm - 1:50pm	ONLINE SPH 1312 SPH 0125	 Lab
	Restricted to College Park students in the Public Health Science major.		
0106	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm W 2:00pm - 3:50pm	ONLINE SPH 1312 SPH 0125	 Lab
	Restricted to College Park students in the Public Health Science major.		

0107	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm F 10:00am - 11:50am	ONLINE SPH 1312 SPH 0125	 Lab
	Restricted to College Park students in the Public Health Science major.		
0108	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm F 12:00pm - 1:50pm	ONLINE SPH 1312 SPH 0125	 Lab
	Restricted to College Park students in the Public Health Science major.		
ESG1	Noah Gibson	Seats (Total: 22)	
	Class time/details on ELMs W 10:00am - 11:50am	ONLINE BLD4 2328	 Lab
	Restricted to Shady Grove students in the Public Health Science major.		
ESG2	Noah Gibson	Seats (Total: 22)	
	Class time/details on ELMs W 12:00pm - 1:50pm	ONLINE BLD4 2328	 Lab
	Restricted to Shady Grove students in the Public Health Science major.		

KNES332 **Exercise Testing & Prescription for Fitness Professionals**

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES332 or KNES389G. Formerly: KNES389G.

Practical applications of exercise physiology and psychology to target fitness instruction for the general adult population Includes discussion of certification standards and professional development as well as evaluation of program safety and current trends.

0101	Jo Zimmerman	Seats (Total: 25)
	WF 8:00am - 9:50am	SPH 0302

KNES332H **Exercise Testing & Prescription for Fitness Professionals**

(Perm req)

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES332 or KNES389G. Formerly: KNES389G.

Practical applications of exercise physiology and psychology to target fitness instruction for the general adult population Includes discussion of certification standards and professional development as well as evaluation of program safety and current trends.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Jo Zimmerman	Seats (Total: 2)
	WF 8:00am - 9:50am	SPH 0302

KNES346 **Sport for Development**

Prerequisite: Must have earned a minimum grade of C- in KNES287. Recommended: KNES485. Restriction: Must be a major within the SPHL-Kinesiology department and must have earned a minimum of 75 credits. Credit only granted for: KNES389D or KNES346. Formerly: KNES389D.

Examines how sport-based programs and organizations are used by governments, multinational corporations, and non-government organizations (NGO's) to reach personal, community, national and international development objectives; focuses on theorizing the histories of international development and contemporary global issues; contextualizes the interrelationship of theory, institutions, and practices of domestic and international sport for development and peace programing.

0101	Ronald Mower	Seats (Total: 28)
	W 10:00am - 12:30pm	BPS 1234

KNES347 **Sport Economics**

Prerequisite: Minimum grade of C- in KNES287. Recommended: KNES355, ECON111, and ECON200. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES347 or KNES389I. Formerly: KNES389I.

Examines sport as a diverse cultural form through which physical activity is organized, regulated, and consumed within contemporary society. Evaluation of the complex interactions between sport culture economic institutions and forces.

0101	Michael Friedman	Seats (Total: 32)
	MW 2:00pm - 3:15pm Class time/details on ELMs	SPH 1302 ONLINE

KNES350 **The Psychology of Sports & Exercise**

Restriction: Must have earned a minimum of 45 credits.

An exploration of personality factors, including but not limited to motivation, aggression and emotion, as they affect sports participation and motor skill performance.

Restricted to students with a minimum of 45 credit or greater.

0101	Elizabeth Brown TuTh 2:00pm - 3:15pm	Seats (Total: 40) SPH 1312
0102	Elizabeth Brown TuTh 2:00pm - 3:15pm	Seats (Total: 30) SPH 1312
0103	Jay Goldstein TuTh 9:30am - 10:45am	Seats (Total: 40) SPH 1303
0104	Jay Goldstein TuTh 9:30am - 10:45am	Seats (Total: 27) SPH 1303

KNES350H **The Psychology of Sports & Exercise**

(Perm req)

Restriction: Must have earned a minimum of 45 credits.

An exploration of personality factors, including but not limited to motivation, aggression and emotion, as they affect sports participation and motor skill performance.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Elizabeth Brown TuTh 2:00pm - 3:15pm	Seats (Total: 3) SPH 1312
0102	Jay Goldstein TuTh 9:30am - 10:45am	Seats (Total: 3) SPH 1303

KNES355 **Sport Management**

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES355 or KNES498M.

Application of concepts and issues related to management principles and business concerns across various sections of the sport industry. Principles pertaining to the management of sport organizations.

0101	Stephen McDaniel TuTh 12:30pm - 1:45pm	Seats (Total: 27) HBK 0109

KNES355H **Sport Management**

(Perm req)

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES355 or KNES498M.

Application of concepts and issues related to management principles and business concerns across various sections of the sport industry. Principles pertaining to the management of sport organizations.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Stephen McDaniel TuTh 12:30pm - 1:45pm	Seats (Total: 3) HBK 0109	

KNES360 **Physiology of Exercise**

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; or permission of SPHL-Kinesiology department. Restriction: Must be in one of the following programs (Kinesiology; Public Health Science).

A study of the physiology of exercise, including concepts of work, muscular contraction, energy transformation, metabolism, oxygen debt, and nutrition and athletic performance. Emphasis on cardiovascular and respiratory function in relation to physical activity and training.

Students must pay a $75 lab fee.

0101	Sushant Ranadive MWF 12:00pm - 12:50pm Tu 8:00am - 9:50am *Restricted to students in the Kinesiology major (code:08351).*	Seats (Total: 12) SPH 1312 SPH 0125	Lab
0104	Sushant Ranadive MWF 12:00pm - 12:50pm Tu 2:00pm - 3:50pm *Restricted to students in the Kinesiology major (code:08351).*	Seats (Total: 12) SPH 1312 SPH 0125	Lab
0105	Sushant Ranadive MWF 12:00pm - 12:50pm Th 8:00am - 9:50am	Seats (Total: 12) SPH 1312 SPH 0125	Lab
0106	Sushant Ranadive MWF 12:00pm - 12:50pm Th 10:00am - 11:50am *Restricted to students in the Kinesiology major (code:08351).*	Seats (Total: 12) SPH 1312 SPH 0125	Lab

0107	Sushant Ranadive MWF 12:00pm - 12:50pm Th 12:00pm - 1:50pm *Restricted to students in the Kinesiology major (code:08351).*	Seats (Total: 12) SPH 1312 SPH 0125	 Lab
0108	Sushant Ranadive MWF 12:00pm - 12:50pm Th 2:00pm - 3:50pm *Restricted to students in the Kinesiology major (code:08351).*	Seats (Total: 12) SPH 1312 SPH 0125	 Lab

KNES360H **Physiology of Exercise**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; or permission of SPHL-Kinesiology department. Restriction: Must be in one of the following programs (Kinesiology; Public Health Science).

A study of the physiology of exercise, including concepts of work, muscular contraction, energy transformation, metabolism, oxygen debt, and nutrition and athletic performance. Emphasis on cardiovascular and respiratory function in relation to physical activity and training.

Restricted to students who have been admitted in the Kinesiology Honors program. Students must pay a $75 lab fee.

0101	Sushant Ranadive MWF 12:00pm - 12:50pm Contact instructor or department for details.	Seats (Total: 4) SPH 1312	

KNES370 **Motor Development**

Restriction: Must be in a major within SPHL-Kinesiology department.

Motor development across the life span. The developmental sequences of motor skills from birth to old age; neuromaturation of neuromuscular system; analysis of the underlying mechanisms of motor skill development; and correlates of motor development.

0101	Tim Kiemel MW 2:00pm - 2:50pm M 8:00am - 8:50am	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0102	Tim Kiemel MW 2:00pm - 2:50pm M 9:00am - 9:50am	Seats (Total: 16) SPH 1312 SPH 0223	 Lab

0105	Tim Kiemel MW 2:00pm - 2:50pm W 8:00am - 8:50am	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0106	Tim Kiemel MW 2:00pm - 2:50pm W 9:00am - 9:50am	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0107	Tim Kiemel MW 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0108	Tim Kiemel MW 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 16) SPH 1312 SPH 0223	 Lab

KNES370H **Motor Development**

(Perm req)

Restriction: Must be in a major within SPHL-Kinesiology department.

Motor development across the life span. The developmental sequences of motor skills from birth to old age; neuromaturation of neuromuscular system; analysis of the underlying mechanisms of motor skill development; and correlates of motor development.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Tim Kiemel MW 2:00pm - 2:50pm Contact instructor or department for details.	Seats (Total: 3) SPH 1312	

KNES385 **Motor Control and Learning**

Prerequisite: Minimum grade of C- in BSCI201, and a minimum grade of C- in MATH113 or higher. Recommended: KNES265 or PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

This introductory course investigates how humans control and adapt their movements to perform and learn a variety of motor skills, ranging from activities of daily living to elite athlete performance. This course examines the underlying cognitive, sensory and motor processes of control and adaptation of human movements both at the behavioral and neurophysiological levels. Relevant applications to movement rehabilitation as well as performance optimization are employed to illustrate the concepts discussed in class. The cognitive, sensory and motor mechanisms underlying motor control are explored first and then in a motor learning context.

Students must pay a $75 lab fee.

0101	Rodolphe Gentili TuTh 12:30pm - 1:45pm M 12:00pm - 1:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Lab
0102	Rodolphe Gentili TuTh 12:30pm - 1:45pm M 2:00pm - 3:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Lab
0103	Rodolphe Gentili TuTh 12:30pm - 1:45pm W 12:00pm - 1:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Lab
0104	Rodolphe Gentili TuTh 12:30pm - 1:45pm W 2:00pm - 3:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Lab
0106	Rodolphe Gentili TuTh 12:30pm - 1:45pm F 10:00am - 11:50am	Seats (Total: 12) SPH 1312 SPH 0223	 Lab
0107	Rodolphe Gentili TuTh 12:30pm - 1:45pm F 12:00pm - 1:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Lab

KNES385H **Motor Control and Learning**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI201, and a minimum grade of C- in MATH113 or higher. Recommended: KNES265 or PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

This introductory course investigates how humans control and adapt their movements to perform and learn a variety of motor skills, ranging from activities of daily living to elite athlete performance. This course examines the underlying cognitive, sensory and motor processes of control and adaptation of human movements both at the behavioral and neurophysiological levels. Relevant applications to movement rehabilitation as well as performance optimization are employed to illustrate the concepts discussed in class. The cognitive, sensory and motor mechanisms underlying motor control are explored first and then in a motor learning context.

Restricted to students who have been admitted in the Kinesiology Honors program. Students must pay a $75 lab fee.

0101	Rodolphe Gentili TuTh 12:30pm - 1:45pm Contact instructor or department for details.	Seats (Total: 4) SPH 1312	

KNES386 **Experiential Learning**

(Perm req)

Prerequisite: Must have completed three KNES core classes. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Explore and analyze concepts and procedures related to a quality service-learning experience to include planning, implementing, and evaluating a service-learning project.

0101	Lindsey Winter, Emma Powell W 3:00pm - 3:50pm Class time/details on ELMs Tu 2:45pm - 4:00pm	Seats (Total: 8) SPH 2334 ONLINE Location: TBA	Lab
0102	Lindsey Winter, Emma Powell W 3:00pm - 3:50pm Class time/details on ELMs Th 2:45pm - 4:00pm	Seats (Total: 8) SPH 2334 ONLINE Location: TBA	Lab

KNES389 **Topical Investigations**

(Perm req)

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of instructor and department. This class does NOT fulfill a KNES Options Requirement.

Contact department for information to register for this course.

KNES389K **Topical Investigations; Kinesiology Internship**

(Perm req)

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of instructor and department.

Contact department for information to register for this course.

KNES401 **Zip Code: Prediction of Physical Activity & Health**

Prerequisite: Minimum grade of C- in SPHL100. Restriction: Must have earned a minimum of 75 credits; and must be in a major within, SPHL-Kinesiology department.

An exploration of the relationship and impacts of built and other social environments on health, including physical activity, social equity, gentrification, and many others.

0101	Jennifer Roberts	Seats (Total: 26)
	W 4:00pm - 6:30pm	SPH 0121

KNES401H **Zip Code: Prediction of Physical Activity & Health**

(Perm req)

Prerequisite: Minimum grade of C- in SPHL100. Restriction: Must have earned a minimum of 75 credits; and must be in a major within, SPHL-Kinesiology department.

An exploration of the relationship and impacts of built and other social environments on health, including physical activity, social equity, gentrification, and many others.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Jennifer Roberts	Seats (Total: 2)
	W 4:00pm - 6:30pm	SPH 0121

KNES405 **Principles & Techniques of Manual Muscle Testing**

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from Kinesiology core courses at the 300-level or higher. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 105 credits. Additional information: This course emphasizes hands-on application of skills. Course participation is critical.

It is critical for sports medicine and sport performance specialists to understand the location and inter-relationships of the structures of the body that impact human movement. Thus, the primary purpose of this course is to facilitate an in-depth, understanding of the muscles of the body. Specifically, students will learn the origins, insertions, primary and secondary functions, as well as nervous innervations of the major muscle groups of the body. In addition, students will develop palpation skills and learn to grade the function of each muscle through manual muscle testing techniques. These skills form the foundation for assessing functional movement as well as performing safe and effective manual therapy techniques. Thus, while the focus of the class will be to develop sound, introductory palpation and manual muscle testing skills, basic principles of functional movement and manual therapy will also be addressed through hands-on application as well as case study.

0101	Joanne Klossner, Larry Plotkin	Seats (Total: 18)
	TuTh 11:00am - 12:15pm	SPH 0116A

KNES405H **Principles & Techniques of Manual Muscle Testing**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from Kinesiology core courses at the 300-level or higher. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 105 credits. Additional information: This course emphasizes hands-on application of skills. Course participation is critical.

It is critical for sports medicine and sport performance specialists to understand the location and inter-relationships of the structures of the body that impact human movement. Thus, the primary purpose of this course is to facilitate an in-depth, understanding of the muscles of the body. Specifically, students will learn the origins, insertions, primary and secondary functions, as well as nervous innervations of the major muscle groups of the body. In addition, students will develop palpation skills and learn to grade the function of each muscle through manual muscle testing techniques. These skills form the foundation for assessing functional movement as well as performing safe and effective manual therapy techniques. Thus, while the focus of the class will be to develop sound, introductory palpation and manual muscle testing skills, basic principles of functional movement and manual therapy will also be addressed through hands-on application as well as case study.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Joanne Klossner, Larry Plotkin TuTh 11:00am - 12:15pm	Seats (Total: 2) SPH 0116A

KNES440 **Psychology of Athletic Performance**

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES498P, KNES689Z, or KNES440.

Examines the psychological factors, mechanisms, and processes in athletic performance. Utilizes a social psychological approach to focus on the study and review of individual performance in both the interpersonal and social context.

0101	Seppo Iso-Ahola M 4:00pm - 6:30pm	Seats (Total: 30) SPH 1303

KNES440H **Psychology of Athletic Performance**

(Perm req)

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES498P, KNES689Z, or KNES440.

Examines the psychological factors, mechanisms, and processes in athletic performance. Utilizes a social psychological approach to focus on the study and review of individual performance in both the interpersonal and social context.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Seppo Iso-Ahola M 4:00pm - 6:30pm	Seats (Total: 3) SPH 1303

KNES445 **Exercise and Brain Health**

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES498C or KNES445. Formerly: KNES498C.

Examines the evidence for exercise to affect brain function and brain health in children, in adults, and in old age. Covers the adaptations to acute and chronic exercise within brain networks related to emotion, stress reactivity, memory, and executive function, and the effectiveness of physical activity and exercise as treatments for depression, anxiety disorders, and cognitive impairment.

0101	J Carson Smith	Seats (Total: 26)
	TuTh 9:30am - 10:45am	ATL 1434

KNES445H **Exercise and Brain Health**

(Perm req)

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES498C or KNES445. Formerly: KNES498C.

Examines the evidence for exercise to affect brain function and brain health in children, in adults, and in old age. Covers the adaptations to acute and chronic exercise within brain networks related to emotion, stress reactivity, memory, and executive function, and the effectiveness of physical activity and exercise as treatments for depression, anxiety disorders, and cognitive impairment.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	J Carson Smith	Seats (Total: 3)
	TuTh 9:30am - 10:45am	ATL 1434

KNES451 **Children and Sport: A Psychosocial Perspective**

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 105 credits.

Examination of youth sports from a psychosocial perspective, including the impact of highly structured sports on young athletes and the complex social network of coaches, parents and peers.

0101	Elizabeth Brown	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	SPH 0308

KNES451H **Children and Sport: A Psychosocial Perspective**

(Perm req)

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 105 credits.

Examination of youth sports from a psychosocial perspective, including the impact of highly structured sports on young athletes and the complex social network of coaches, parents and peers.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Elizabeth Brown	Seats (Total: 1)
	TuTh 11:00am - 12:15pm	SPH 0308

KNES457 **Managing Youth Programs: Educational, Fitness and Sport**

Prerequisite: Minimum grade of C- in KNES350 and KNES370. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES457 or KNES498Y.

An examination of the basic functions involved in managing physical education, fitness, and youth sports programs. Focus on leadership skills, organizational management, and techniques for applying learned skills in a variety of organizational settings that serve the nation's youth.

0101	Jay Goldstein	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	SPH 0305

KNES460 **Physiology of Aging and the Impact of Physical Activity**

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must be in one of the following programs (Kinesiology; Public Health Science); and must have earned a minimum of 75 credits. Credit only granted for: KNES498F or KNES460. Formerly: KNES498F.

Biology of the aging process in healthy individuals and those with chronic disease, the effects of acute exercise and exercise training on the physiological decline that occurs in humans, and the role that regular physical activity plays on enhancing the quality of life and activities of daily living in individuals.

0101	Steven Prior	Seats (Total: 26)
	M 8:00am - 10:30am	SPH 0303

KNES460H **Physiology of Aging and the Impact of Physical Activity**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must be in one of the following programs (Kinesiology; Public Health Science); and must have earned a minimum of 75 credits. Credit only granted for: KNES498F or KNES460. Formerly: KNES498F.

Biology of the aging process in healthy individuals and those with chronic disease, the effects of acute exercise and exercise training on the physiological decline that occurs in humans, and the role that regular physical activity plays on enhancing the quality of life and activities of daily living in individuals.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Steven Prior M 8:00am - 10:30am	Seats (Total: 4) SPH 0303

KNES464 **Exercise Metabolism: Role in Health and Disease**

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES464 or KNES498L.

Examines the role of metabolism in kinesiology, especially as it relates to physical inactivity, health and disease. Includes bioenergetics, substrate utilization, cell signaling, and metabolic gene expression and their impact on chronic health conditions or disease.

Prerequisite: KNES360 with a C- or better

0101	Sarah Glancy TuTh 9:30am - 10:45am	Seats (Total: 25) SPH 0302

KNES464H **Exercise Metabolism: Role in Health and Disease**

(Perm req)

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES464 or KNES498L.

Examines the role of metabolism in kinesiology, especially as it relates to physical inactivity, health and disease. Includes bioenergetics, substrate utilization, cell signaling, and metabolic gene expression and their impact on chronic health conditions or disease.

Prerequisite: KNES360 with a C- or better Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Sarah Glancy TuTh 9:30am - 10:45am	Seats (Total: 3) SPH 0302

KNES465 **Physical Activity and Disease Prevention and Treatment**

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must have earned a minimum of 75 credits.

Critically examines the scientific evidence that supports the use of physical activity to prevent and treat age-related diseases, including cardiovascular disease, diabetes, abnormal lipoprotein-lipid levels, hypertension, obesity, osteoporosis and cancer.

0101	Sushant Ranadive TuTh 11:00am - 12:15pm	Seats (Total: 25) SPH 0307

KNES465H **Physical Activity and Disease Prevention and Treatment**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must have earned a minimum of 75 credits.

Critically examines the scientific evidence that supports the use of physical activity to prevent and treat age-related diseases, including cardiovascular disease, diabetes, abnormal lipoprotein-lipid levels, hypertension, obesity, osteoporosis and cancer.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Sushant Ranadive	Seats (Total: 3)
	TuTh 11:00am - 12:15pm	SPH 0307

KNES474 **Quantitative Methods in Cognitive Motor Behavior - MATLAB**

Prerequisite: MATH115 or equivalent; or permission of Kinesiology department. Recommended: MATH240. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES498Q or KNES474. Formerly: KNES498Q.

Includes basic computer programming, algorithm, and quantitative techniques for time-series data with an emphasis on, but not limited to, human movement. These topics will be taught using MATLAB, a programming language and environment for numerical computation, data analysis, and visualization.

0101	Hyuk Oh	Seats (Total: 8)
	TuTh 3:30pm - 4:45pm	SPH 0227

KNES476 **Honors Thesis Proposal**

(Perm req)

Corequisite: KNES478. Restriction: Must be a KNES Honors student; and senior standing. Credit only granted for: KNES476 or KNES498R.

Development of honors thesis proposal based on preliminary research and literature review. Presentation of formal proposal to the thesis committee and fellow honors students.

0101	Tim Kiemel	Seats (Total: 20)
	F 10:00am - 10:50am Class time/details on ELMs	SPH 1302 ONLINE

KNES478 **Honors Seminar**

(Perm req)

Guided discussion of research topics of current interest.

Continuing KNES Honors Students must enroll in KNES478 every semester they are in the program.

0101	Tim Kiemel	Seats (Total: 20)
	F 11:00am - 11:50am	SPH 1302

KNES483 **Sport Marketing and Media**

Prerequisite: Minimum grade of C- in KNES287. Recommended: KNES355. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Industry practices in sport marketing and media. Marketing strategies and consumer behavior in different sport contexts. Critical examination of selected social and economic issues related to the buying and selling of sport.

0101	Stephen McDaniel TuTh 3:30pm - 4:45pm	Seats (Total: 25) SPH 0307

KNES483H **Sport Marketing and Media**

(Perm req)

Prerequisite: Minimum grade of C- in KNES287. Recommended: KNES355. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Industry practices in sport marketing and media. Marketing strategies and consumer behavior in different sport contexts. Critical examination of selected social and economic issues related to the buying and selling of sport.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Stephen McDaniel TuTh 3:30pm - 4:45pm	Seats (Total: 3) SPH 0307

KNES485 **Sport and Globalization**

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Examination of sport culture from a global perspective; focuses on theorizing the similarities and differences between various national sporting cultures.

0101	Ronald Mower Class time/details on ELMs W 1:00pm - 1:50pm	Seats (Total: 28) ONLINE BPS 1232

KNES497 **Kinesiology Senior Seminar**

(Perm req)

Prerequisite: A professional writing course with a minimum grade of C-; and must have completed 6 KNES core courses and 2 KNES option courses, all with a C- or higher; and must have completed STAT100 with a C- or better. Restriction: Senior standing or higher; and must be in Kinesiology program; and permission of department.

Discussions of contemporary issues vital to the discipline, critiques of research in the student's area/areas of special interest, completion of a major project where the student will be asked to demonstrate the ability to carry out investigative processes in problem solving and critical writing under faculty direction.

Students may not be eligible to add or change their section if they did not attend class during schedule adjustment.

Click here for more information.

0103	James Hagberg	Seats (Total: 20)
	Th 8:00am - 10:30am	Location: TBA
	Physical Activity & the Treatment & Prevention of Obesity Students will examine and critically analyze the current research literature relevant to the diagnosis, prevalence, and impact of the current obesity epidemic in the US. Students will also study the present state of knowledge relative to the use of physical activity to prevent and treat obesity. This seminar format class is totally based onstudent presentations, student participation, and student writing assignments.	

KNES498 **Special Topics in Kinesiology**

Topics of special interest in areas not covered by regularly scheduled courses.

This class does NOT fulfill a KNES Options Requirement.

Contact department for information to register for this course.

KNES498A **Special Topics in Kinesiology; The Kinesiological & Scientific Bases of Human Movement & Sport: Golf**

Topics of special interest in areas not covered by regularly scheduled courses.

Prerequisites: KNES350 with a grade of C- or better. Restriction: Must be a KNES major and must have earned at least 90 credits. Students must pay a $40 instructional materials fee. Introduces students to the study of human movement and sport through the experience of learning a specific motor skill (i.e., golf) and the scientific knowledge regarding motor learning and performance. Through active personal learning and acquired scientific knowledge, students areexpected to develop critical thinking skills about motor performance. The course meets at the University Driving Range for about six weeks andthen in the classroom. Students are responsible for transportation (walking or driving) to the Range.

0101	Seppo Iso-Ahola	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	SPH 0303

KNES498G **Special Topics in Kinesiology; From the Olympics to the Rehabilitation Cliniic: Mental Skills Training Applications**

Topics of special interest in areas not covered by regularly scheduled courses.

Prerequisite: KNES350 with a C- or better. Restriction: Must have completed a minimum of 90 credits. Mental Performance Skills Training and Team Building involves the examination and application of the major concepts of human performance psychology in, and beyond, the professional, collegiate, amateur and youth sport athletic spaces to allied health practitioner (PT, OT, OR, PA, RN), athletic and personal training, and tactical athlete (i.e., military, law enforcement, and firefighting) environments.

0101	Jay Goldstein TuTh 2:00pm - 3:15pm	Seats (Total: 24) SPH 0305

KNES609 **Research Issues in Kinesiology**

(Perm req)

Issues, methodologies, and critical analyses of current research in Kinesiology.

Contact department for information to register for this course.

KNES614 **Cultural Studies and Physical Culture**

Credit only granted for: KNES614 or KNES689P. Formerly: KNES689P.

Discusses the political commitments, constituents, and complexities of cultural studies, and their relevance for furthering the understanding of physical culture and the project of physical cultural studies.

0101	David Andrews M 4:00pm - 6:30pm	Seats (Total: 15) SPH 2334

KNES618 **Current Readings in Exercise and Applied Physiology**

Student-led presentations of contemporary literature in the areas of genetics, exercise science, fitness and health. Emphasis on papers describing new research findings, novel techniques, innovative methods, and emerging issues.

0101	Sarah Glancy M 2:00pm - 2:50pm	Seats (Total: 15) SPH 2334

KNES622 **Teaching Secondary Physical Education**

(Perm req)

Restriction: Must be enrolled in PreK-12 Physical Education Master of Education program. Credit only granted for: KNES689I OR KNES622. Formerly: KNES689I.

Students will learn aspects of teaching secondary physical education including: characteristics of secondary school students, testing, grading, teaching lifetime activities, and effective teaching techniques using SHAPE America Standards.

IH60	Cara Grant	Seats (Total: 20)
	Tu 4:30pm - 7:30pm	SPH 0121
	MCERT Program Outreach Offering. Registration restricted to program participants.	

KNES645 **Exercise and Brain Health**

(Perm req)

Prerequisite: Minimum grade of C- in KNES350; or students who have taken courses with comparable content may contact the department. Credit only granted for: KNES645 or KNES689X. Formerly: KNES689X.

Examines the evidence for exercise to affect brain function and brain health in children, in adults, and in old age. Covers the adaptations to acute and chronic exercise within brain networks related to emotion, stress reactivity, memory, and executive function, and the effectiveness of physical activity and exercise as treatments for depression, anxiety disorders, and cognitive impairment.

0101	J Carson Smith	Seats (Total: 3)
	TuTh 9:30am - 10:45am	ATL 1434

KNES658 **Teaching Internship in Physical Education**

The MCERT PE internship is an intense experience that immerses interns into the life of their assigned Secondary school. The internship experience is designed to provide our pre-service teachers with a rich opportunity to learn the craft of teaching through close observation of experts as well as practice in the planning, delivery and assessment of instruction.

Contact department for information to register for this course.

KNES660 **Psychology of Athletic Performances**

Prerequisite: KNES350. Credit only granted for: KNES660 or KNES689Z. Formerly: KNES689Z.

Psychological factors, mechanisms, and processes in athletic performance. The basic approach is social psychological, according to which the focus is on individual performance in the interpersonal athletic context. Intrapersonal and interpersonal factors and their effects on athletic performance. Psychology of peak performance, choking, and errors of mental control. Analysis of the general principles and types of mental training.

0101	Seppo Iso-Ahola	Seats (Total: 30)
	M 4:00pm - 6:30pm	SPH 1303

KNES674 **Quantitative Methods in Cognitive Motor Behavior**

Recommended: Proficiency in Precalculus and Linear Algebra or permission of department. Credit only granted for: KNES689R or KNES674. Formerly: KNES689R.

Includes basic computer programming, algorithm, and quantitative techniques for time- series data with an emphasis on, but not limited to, human movement. These topics will be taught using MATLAB, a programming language and environment for numerical computation, data processing, analysis, and visualization.

0101	Hyuk Oh	Seats (Total: 8)
	TuTh 3:30pm - 4:45pm	SPH 0227

KNES678 **Professional Seminar for Teacher Development in Physical Education**

(Perm req)

The spring seminar course is an extension of the fall seminar course and spring internship course. It accompanies a full time undergraduate level teaching internship and is intended to support and extend students' field experience learning. The spring seminar course is designed to continue to provide students with the support they need to successfully meet the College of Education's Middle School Mathematics and Science programmatic requirements and the Maryland State Department of Education's Middle School Mathematics and Science Teacher Certification Requirements. These requirements include demonstrating mastery on all of the College of Education's Foundational Competencies (FCCs) and Performance Based Assessments (PBAs) and the national edTPA, InTASC, and AMLE Standards.

IH60	Cara Grant	Seats (Total: 20)
	M 4:00pm - 6:30pm	ONLINE
	MCERT Program Outreach Offering. Registration restricted to program participants.	

KNES689 **Special Problems in Kinesiology**

(Perm req)

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

KNES689J **Special Problems in Kinesiology; Physical Cultural Studies and the City**

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

Questions about urban problems have featured prominently within physical cultural studies research. This course will engage this body of work, examine theories about cities and space, and discuss methodological approaches.

0101	Michael Friedman	Seats (Total: 15)
	W 4:00pm - 6:30pm	SPH 2334

KNES689Q **Special Problems in Kinesiology; Clinical Biomechanics: Musculoskeletal Injury**

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

0101	Jae Kun Shim Tu 4:00pm - 6:30pm	Seats (Total: 15) SPH 0223

KNES778 **Practical Experience in Physical Activity and Public Health**

The practical experience is a time-limited, supervised period of public/community health activities carried out in a health or allied health organization involved with physical activity. Students gain practical experience in areas such as program planning and implementation, program evaluation, public policy analysis, research, and management.

0101	Valerie Cholet, Shannon Jette Contact instructor or department for details.	Seats (Total: 10)

KNES786 **Capstone Project in Physical Activity and Public Health**

Prerequisite: KNES600, KNES601, and KNES602.

The culminating experience in which the student applies knowledge and skills learned in the MPH program to conduct independent work on a physical activity problem under the supervision of a faculty advisor.

0101	Andrea Liberto, Shannon Jette Contact instructor or department for details.	Seats (Total: 10)

KNES789 **Advanced Projects in Kinesiology**

(Perm req)

Advanced projects examining current problems and trends in kinesiology.

Contact department for information to register for this course.

KNES789W **Advanced Projects in Kinesiology; Modeling & Simulation of Human Movement**

Advanced projects examining current problems and trends in kinesiology.

Development of physics-based models for simulating the biomechanics of human movement on computers.

0101	Ross Miller Th 4:00pm - 6:30pm	Seats (Total: 15) SPH 0223

KNES799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

KNES898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

KNES899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

KORA Korean Fall 2023

KORA101 **Elementary Korean I**

Prerequisite: Must have appropriate World Language Placement Test (WLPT) score; and permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must be a non-Heritage student with no background in Korean.

Introduction to the Korean language. Primary emphasis on oral skills, but Hangul, the Korean alphabet, will also be introduced.

0101	Seong Minne Koh MWF 10:00am - 10:50am	Seats (Total: 15) HJP 2242
0201	Seong Minne Koh MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 3203

KORA201 **Intermediate Korean I**

Prerequisite: KORA102; or permission of instructor.

An intermediate-level course designed for non-Heritage students. It begins the second year of instruction in the University's two-track Korean Program.

0101	Seong Minne Koh MWF 11:00am - 11:50am	Seats (Total: 15) HJP 2242
0201	Seong Minne Koh MWF 1:00pm - 1:50pm	Seats (Total: 15) JMZ 3203

KORA398A **Special Topics in Korean Studies; Language and Society in the Two Koreas**

(Perm req)

Study of particular aspect of Korean language, literature, and/or culture. Topic and language of instruction to be announced when course is offered.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at University of Minnesota, students enroll and receive credit for it at Maryland.

0101	Instructor: TBA **Meets September 5, 2023 - December 13, 2023** MW 3:00pm - 4:15pm	Seats (Total: 13) ONLINE

KORA398W **Special Topics in Korean Studies; Advanced Korean Through Culture**

(Perm req)

Study of particular aspect of Korean language, literature, and/or culture. Topic and language of instruction to be announced when course is offered.

Prerequisite: KORA202 or permission of instructor. Improving Korean Language skills through exploration of Korean culture. Topics include Korean history, art, music and food culture.

0101	Seong Minne Koh TuTh 2:00pm - 3:15pm	Seats (Total: 10) ONLINE

KORA499 **Independent Study Korean**

(Perm req)

Independent study under faculty supervision.

Contact department for information to register for this course.

LACS Latin American and Caribbean Studies Fall 2023

LACS234 **Issues in Latin American and Caribbean Studies I**

Cross-listed with: PORT234, SPAN234. Credit only granted for: LASC234, PORT234, SPAN234, or LACS234. Formerly: LASC234.

Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions. Taught in English.

0101	Francisco Barrenechea MW 3:30pm - 4:45pm	Seats (Total: 30) SQH 1119
0102	Juan Diaz TuTh 2:00pm - 3:15pm	Seats (Total: 25) CCC 1105

LACS234H **Issues in Latin American and Caribbean Studies I**

Cross-listed with: PORT234, SPAN234. Credit only granted for: LASC234, PORT234, SPAN234, or LACS234. Formerly: LASC234.

Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions. Taught in English.

0101	Francisco Barrenechea MW 3:30pm - 4:45pm	Seats (Total: 5) SQH 1119

LACS250 **History of Colonial Latin America**

Cross-listed with: HIST250. Credit only granted for: LASC250, HIST250, OR LACS250. Formerly: LASC250.

Introductory survey of the history of Latin America from pre-Columbian Indian cultures to the beginning of the wars for independence (ca. 1810), covering cultural, political, social, and economic developments. Major themes include conquest, colonialism, indigenous culture, African slavery, religion, race and ethnicity, and gender ideologies.

0101	David Sartorius TuTh 11:00am - 12:15pm	Seats (Total: 40) TYD 0101

LACS448Y **Special Topics in Latin American and Caribbean Studies; Tropical Dreams: Nature and Art in Brazil**

Intensive study of a selected topic related to Latin American and Caribbean Studies.

Cross-listed with PORT409A, SPAN408O, and SPAN609A. Credit only granted for PORT409A, LACS448Y, SPAN408O, or SPAN609A. Interdisciplinary examination of tropicality and nature tropes that have shaped current cultural, political, and environmental debates in Brazil. Taught in English.

0101	Thayse Leal Lima TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMZ 0125

LACS458 **Senior Capstone Course in Latin American and Caribbean Studies**

Capstone course for advanced students in the Latin American and Caribbean Studies Certificate Program or other students with appropriate preparation. Interdisciplinary topics will vary each semester.

0101	Juan Diaz TuTh 9:30am - 10:45am	Seats (Total: 10) HJP 4120

LACS486 **Internship in Latin American/Caribbean Studies**

(Perm req)

Prerequisite: Student must have completed at least two LACS courses, one of which must be a required/core course (LACS/SPAN234, LACS/SPAN235, LACS/HIST250, or LACS/HIST251); and permission of Latin American Studies Center required. Restriction: Minimum cumulative GPA of 2.5; and must have earned a minimum of 60 credits. Credit only granted for: LASC486 OR LACS486. Formerly: LASC486. Additional information: The course is primarily intended for students seeking the Certificate in Latin American and Caribbean Studies, but exceptions will be considered for students with educational or career interests which lie in this area. Student internships must be approved by the Director, and students must secure an appropriate faculty mentor for the internship course. An internship course will be approved only if a faculty supervisor is available.

Internship experience with an organization that works with or studies Latin American and/or the Caribbean. This is an experiential learning course that provides semester-long training that enriches the student's academic field of study and the LACS Certificate. Students submit a final written report of their experience, including critical analysis of the institutional relevance to their major field of study and to Latin American and Caribbean Studies. Students will also be asked to give an oral presentation.

Contact department for information to register for this course.

LACS609 **Colloquium in Latin American and Caribbean Studies**

The colloquium is one of three core courses for the Graduate Certificate in Latin American and Caribbean Studies. Providing 3 credits over the course of multiple semesters (1-2 credits per semester), it ensures an ongoing intellectual community among students, faculty, and guest scholars. For group discussions, the Colloquium meets four times per semester. Additionally, students attend Latin American and Caribbean activities and events in order to discuss and theorize about the region and its diaspora from informed perspectives. Each semester's colloquium provides 1-2 credits toward the Graduate Certificate.

The Colloquium will ensure an ongoing intellectual community among students, faculty, and guest scholars. The director of the Center and students will meet to discuss readings and occasional presentations by aguest speaker. Students will also present their work for feedback. With the assistance of the Director, students are invited to play an essential role in the planning and structuring of the Colloquium. This themed colloquium (the theme will change each year) will meet four times per semester

0101	Isabella Alcaniz	Seats (Total: 18)
	F 12:00pm - 1:30pm	Location: TBA
	Contact instructor or department for details.	

LACS688 **Experiential Learning in Latin American and Caribbean Studies**

Offers an opportunity for practical experience of Latin American and Caribbean organizations, to supplement a methodological focus. Credits may be fulfilled with internships, an applied research assistantship, or any program outside the University that focuses on the experiences of Latin America, the Caribbean, and related diasporas. Examples of experiential learning may include internships at organizations such as the Pan American Health Organization, the World Bank, the Washington Office on Latin America (WOLA), or Casa de Maryland.

0101	Isabella Alcaniz	Seats (Total: 5)
	Contact instructor or department for details.	

LACS689 **Research Praxis in Latin American and Caribbean Studies**

(Perm req)

The concentration in research praxis is intended primarily to serve students who are interested in academic research and teaching in Latin American and Caribbean studies by exposing them to a research experience supervised by an affiliate faculty member in Latin American and Caribbean studies. This might be a 3-credit intensive research seminar or independent studies tutorial involving a major research project or a 1-3 credit research assistantship in Latin American and Caribbean studies.

0101	Isabella Alcaniz	Seats (Total: 5)
	Contact instructor or department for details.	

LARC Landscape Architecture Fall 2023

LARC121 **Computer Visualization in Design**

Students are provided with the opportunity to 1) explore basic design principles and practice, 2) explore and apply computer concepts and principles, 3) learn and apply basic computer tools used in landscape architecture and allied disciplines, and 4) demonstrate competency in design vocabulary and computer applications through demonstrated deliverables used in the built environment design fields.

FC01	Jonathan Gemmell	Seats (Total: 15)
	Tu 7:30pm - 8:45pm Th 7:30pm - 8:45pm	PLS 2137 ONLINE
	Restricted to students in Freshmen Connection.	

LARC141 **Design Fundamentals Studio**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in LARC265 and LARC266. Corequisite: LARC220. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department; and sophomore standing or higher; and must be in Landscape Architecture program. Credit only granted for: LARC141 or LARC230. Formerly: LARC141.

Introduction to the fundamentals of basic design focusing on creative problem solving associated with landscape architecture. Here you will explore design with different geometries, organizing principles, concept development, spatial definition, land formation, structures and plants. Emphasis will be given on how to represent design ideas using measured drafting techniques and presentation board organization. A series of foundational exercises will culminate in the redesign of a small public space.

Students must pay a $300.00 Landscape Architecture Fee.

0101	Christopher Ellis MW 2:00pm - 3:15pm MW 3:30pm - 4:50pm	Seats (Total: 15) PLS 2152 PLS 2152	 Lab

LARC151 **Urban Agriculture: Designing and Assessing Edible Landscapes**

Students will examine the growing development of urban agriculture and edible landscapes. Urban agriculture has seen a recent growth and interest in cities across the globe. From Paris to New York, from Baltimore to Detroit, urban agriculture is an emerging land use to address a variety of needs. Redevelopment, food deserts, community engagement and environmental justice are just some of the issues and topics that are connected to the recent growth of urban agriculture. This course will take a critical examination of urban agriculture's contribution to the food system, its input and outputs in the urban landscape, and the planning and design of urban agriculture and edible landscapes.

0101	Kelly Fleming MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 20) ESJ 2204 PLS 1164	 Discussion
0102	Kelly Fleming MW 11:00am - 11:50am M 1:00pm - 1:50pm	Seats (Total: 20) ESJ 2204 PLS 1164	 Discussion
0103	Kelly Fleming MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 20) ESJ 2204 PLS 1164	 Discussion
0104	Kelly Fleming MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 20) ESJ 2204 PLS 1164	 Discussion
0105	Kelly Fleming MW 11:00am - 11:50am M 3:00pm - 3:50pm	Seats (Total: 20) ESJ 2204 PLS 1119	 Discussion
0106	Kelly Fleming MW 11:00am - 11:50am M 4:00pm - 4:50pm	Seats (Total: 20) ESJ 2204 PLS 1158	 Discussion
FC01	Sherry Russell W 7:30pm - 8:45pm M 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 15) PLS 1130 ONLINE	

LARC160 **Introduction to Landscape Architecture and Environmental Design**

History, theory, philosophy and current practice of the profession of landscape architecture. Explores the interactive relationship between humans and their environment by examining people's perceptions of and changing attitude towards the landscape, as well as, an examination of how these are related to ecological and cultural influences. Topics include urban, ecological, community and creative design.

0101	Deni Ruggeri MW 12:00pm - 12:50pm M 2:00pm - 2:50pm	Seats (Total: 20) ATL 2324 PLS 1115	Discussion
0102	Deni Ruggeri MW 12:00pm - 12:50pm M 3:00pm - 3:50pm	Seats (Total: 20) ATL 2324 PLS 1115	Discussion
0103	Deni Ruggeri MW 12:00pm - 12:50pm M 3:00pm - 3:50pm	Seats (Total: 20) ATL 2324 PLS 1146	Discussion
0104	Deni Ruggeri MW 12:00pm - 12:50pm W 2:00pm - 2:50pm	Seats (Total: 20) ATL 2324 PLS 1115	Discussion
0105	Deni Ruggeri MW 12:00pm - 12:50pm W 3:00pm - 3:50pm	Seats (Total: 20) ATL 2324 PLS 1115	Discussion
0106	Deni Ruggeri MW 12:00pm - 12:50pm M 4:00pm - 4:50pm	Seats (Total: 20) ATL 2324 PLS 1146	Discussion
FC01	Colleen Vacelet MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 15) PLS 1130	

LARC265 **Site Analysis and Ecological Principles**

(Perm req)

Prerequisite: LARC141. Corequisite: LARC240 and LARC221. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department; and sophomore standing or higher; and must be in Landscape Architecture program. Credit only granted for: LARC265 or ARCH460.

Principles and methods of site analysis with an emphasis on the application of ecological principles in landscape architecture, architecture and planning.

0101	Jack Sullivan	Seats (Total: 20)	
	TuTh 9:30am - 10:45am	PLS 1158	

LARC320 **Principles of Site Engineering**

(Perm req)

Prerequisite: LARC221. Corequisite: LARC340. Restriction: Must be in Landscape Architecture program; and junior standing or higher.

The study and application of landscape construction principles as applied to grading, drainage, site layout, storm water management, and vehicular and pedestrian circulation.

0101	Shihua Wang	Seats (Total: 20)	
	Th 8:00am - 10:45am	PLS 2150	
	Tu 9:30am - 10:45am	PLS 2150	Lab

LARC340 **Site Planning and Design Studio**

(Perm req)

Prerequisite: LARC220, LARC265, LARC266, and LARC230. Corequisite: LARC411 and LARC221. Restriction: Must be in Landscape Architecture program; and sophomore standing or higher. Credit only granted for: LARC340 or LARC231. Formerly: LARC340.

An examination of the influence of landscape character and site features (natural and cultural) on landscape architecture, architecture and planning through application in the studio setting.

Students must pay a $300.00 Landscape Architecture Fee.

0101	Byoung-Suk Kweon	Seats (Total: 15)	
	MW 1:00pm - 1:50pm	PLS 2150	
	MW 2:00pm - 4:50pm	PLS 2150	Lab

LARC389 **Internship in Landscape Architecture**

(Perm req)

A supervised internship where students earn credit for work experience related to their career goals. Each student must keep a work log, work on a special project, and produce a report related to this project. An evaluation from the external supervisor of the project is required. Participation requires application to the internship advisor in the preceding semester.

Restriction: Permission of department. The deadline to request permission to sign-up for the course is 6/16/2023. See Dr. Mark Carroll for more information. There will be two required real-time sessions, time to be determined. A supervised internship where students earn credit for work experience related to their career goals. Each student must keep a work log, work on a special project, and produce a report related to this project. An evaluation from the external supervisor of the project is required. Participation requires application to the internship advisor in the preceding semester.

0101	Mark Carroll	Seats (Total: 15)	
	Meets July 5, 2023 - November 1, 2023		
	Class time/details on ELMs	ONLINE	

LARC420 **Professional Practice**

(Perm req)

Prerequisite: LARC321. Restriction: Must be in Landscape Architecture program.

An introduction to and comparative study of the professional concerns of design firms. Focus on planning, legal, ethical, marketing and management considerations of interdisciplinary practices.

0101	Ronald Sessoms	Seats (Total: 30)	
	Tu 9:30am - 12:15pm	PLS 1117	

LARC440 **Urban Design Studio**

(Perm req)

Prerequisite: LARC321; and LARC340; and LARC341. Restriction: Must be in Landscape Architecture program.

The landscape architect's role within the interdisciplinary urban design process, focusing on urban site design issues. Pedestrian friendly site design and the future of sustainable development will be studied.

Students must pay a $300.00 Landscape Architecture Fee.

0101	Jack Sullivan	Seats (Total: 15)	
	MW 1:00pm - 1:50pm	PLS 2148	
	MW 2:00pm - 4:50pm	PLS 2148	Lab

LARC452 **Green Infrastructure and Community Greening**

Prerequisite: PLSC110 and PLSC111; or (PLSC112 and PLSC113); or permission of instructor. Restriction: Junior standing or higher. Credit only granted for: LARC489G or LARC452. Formerly: LARC489G.

A critical look and exploration of green infrastructure (GI) elements in the built environment in contributing to ecosystems services and the sustainability of the built environment. The course explores the science, issues, challenges, and the policy, planning and design solutions offered by green infrastructure.

0101	David Myers	Seats (Total: 22)	
	W 10:00am - 10:50am	PLS 1113	
	F 10:00am - 11:50am	PLS 1113	
	for LARC majors only or permission of instructor		

LARC470 **Landscape Architecture Seminar**

(Perm req)

Prerequisite: LARC321; and LARC341. Corequisite: LARC440. Restriction: Senior standing; and must be in Landscape Architecture program.

A combination of self-directed study, seminar, and lecture formats. An introduction to aspects of research methods, critical analysis, and proposal writing with a focus on urban and community design.

0101	Caren Yglesias	Seats (Total: 13)	
	M 9:00am - 11:50am	PLS 1162	

LARC489R **Special Topics in Landscape Architecture; Fundamental Graphics**

(Perm req)

Credit according to time scheduled and organization of course. A lecture and/or studio course organized as an in-depth study of a selected specialization of landscape architecture not covered by existing courses.

0101	Sherry Russell	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PLS 2152	
	TuTh 12:30pm - 1:45pm	PLS 2152	Lab

LARC499 **Independent Studies in Landscape Architecture**

(Perm req)

Independent studies in landscape architecture including field, studio or library research under the direction of a faculty member.

Contact department for information to register for this course.

LARC620 **Graphic Tools for Landscape Representation**

(Perm req)

Corequisite: LARC640. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

This course integrates digital and analog methods of communication and provides an introduction to computer tools and techniques commonly used in landscape architecture practice. Non-drafting computer tools will be used to orient basic digital image capture, manipulation, and presentation formatting. Also includes techniques and application of various media for graphic communication associated with landscape architecture.

0101	Christopher Ellis	Seats (Total: 10)	
	TuTh 8:00am - 9:15am	PLS 1142	
	TuTh 9:30am - 10:45am	PLS 1142	Lab

LARC640 **Graduate Studio I**

(Perm req)

Corequisite: LARC620. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

Principles and techniques of design as applied to shaping the landscape; developing concepts in visual thinking, environmental awareness, and design intervention through studio exercises and projects.

Students must pay a $300.00 Graduate Studio Fee.

0101	Naomi Sachs	Seats (Total: 10)	
	TuTh 1:00pm - 1:50pm	PLS 1142	
	TuTh 2:00pm - 4:50pm	PLS 1142	Lab

LARC642 **Graduate Studio III**

(Perm req)

Prerequisite: LARC641. Corequisite: LARC670. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

A focus on the interaction of landscape science (hydrology, geology, etc.) with the necessities and mechanisms of human settlements (transportation, economics, etc.) emphasizing innovative and forward thinking solutions to urbanization and ecological problems. It will apply this knowledge to landscape analysis, recreational planning and design, and community development, emphasizing resource management, spatial organization, landscape character, and the physical and social structure of community services. This course will be required for both Trach 1 and Track 2 students.

Students must pay a $300.00 Graduate Studio Fee.

0101	Kelly Fleming	Seats (Total: 10)	
	TuTh 1:00pm - 1:50pm	PLS 2154	
	TuTh 2:00pm - 4:50pm	PLS 2154	Lab

LARC670 **Landscape Architecture Theory and Criticism**

(Perm req)

Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

Review and analysis of the body of literature concerning landscape architecture and relationships between humans and both natural and designed environments. Topics may include: rationalism, ethics, aesthetics, social and economic values, postmodernism, feminist, multiculturalism, ecological determinism, preservation/conservation, and sustainability and ecological design. Each week students will lead a debate and discussion on a theoretical issue based on the assigned readings for that week.

0101	Caren Yglesias	Seats (Total: 10)	
	M 9:00am - 11:50am	PLS 1162	

LARC699 **Independent Studies in Landscape and Architecture**

(Perm req)

Individual Instruction course.

Contact department for information to register for this course.

LARC721 **Landscape Construction Methods and Materials**

(Perm req)

Prerequisite: LARC720. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

Basic methods of constructing landscapes and manipulating the appropriate plant and inorganic materials for the creation of ecologically sustainable environments for human use. An examination of the use, properties, and detailing of materials used in landscape construction.

0101	John Wray IV	Seats (Total: 10)	
	W 8:00am - 9:15am	PLS 2154	
	W 9:30am - 10:45am	PLS 2154	

LARC748 **Advanced Special Topics Studio**

Advanced special topics comprehensive landscape architecture studio-exploration will focus on cultural, behavioral and ecological issues in the physical planning and design of urban landscapes.

Students must pay a $300.00 Graduate Studio Fee.

0101	Deni Ruggeri	Seats (Total: 10)	
	TuTh 1:00pm - 1:50pm	PLS 2156	
	TuTh 2:00pm - 4:50pm	PLS 2156	Lab

LARC799 **Master's Thesis Research**

(Perm req)

Development of a terminal thesis on a problem in landscape architecture, designed to demonstrate comprehensive skills and knowledge achieved in the graduate program. The subject will be selected in consultation with an advisor and periodically reviewed with a committee headed by the advisor.

Students must pay a $300.00 Graduate Studio Fee.

Contact department for information to register for this course.

LATN Latin Fall 2023

LATN101 **Elementary Latin I**

Additional information: A student who has two units of Latin in high school may register for LATN101 for the purposes of review, but ordinarily not for credit.

0101	Eugenia Lao	Seats (Total: 20)
	M 9:00am - 10:15am	ONLINE
	Class time/details on ELMs	ONLINE

LATN201 **Intermediate Latin**

Prerequisite: Must have completed LATN102 at University of Maryland, College Park; or permission of ARHU-Classics department. Formerly: LATN203.

0101	Gregory Bucher	Seats (Total: 15)
	MWF 10:00am - 10:50am	ONLINE
	F 9:00am - 9:50am	ONLINE

LATN351 **Horace and Catullus**

Prerequisite: LATN201; or students who have taken courses with comparable content may contact the department.

Readings are in Latin.

0101	Katherine Wasdin	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	MMH 1218

LATN488F **Latin Readings; Flavian Literatures**

The reading of one or more selected Latin authors from antiquity through the Renaissance. Reports.

0101	Chiara Graf	Seats (Total: 5)
	W 5:00pm - 7:40pm	MMH 1218

LATN488O **Latin Readings; The Augustan Age**

The reading of one or more selected Latin authors from antiquity through the Renaissance. Reports.

0101	Gregory Bucher	Seats (Total: 5)
	Tu 5:00pm - 7:40pm	ONLINE

LATN499 **Independent Study in Latin Language and Literature**

(Perm req)

Contact department for information to register for this course.

LATN623 **The Augustan Age**

Analysis of the major literary figures and genres in prose and poetry of the period from 43 BC to AD 14.

0101	Gregory Bucher Tu 5:00pm - 7:40pm	Seats (Total: 7) ONLINE

LATN688F **Special Topics in Latin Literature; Flavian Literatures**

0101	Chiara Graf W 5:00pm - 7:40pm	Seats (Total: 7) MMH 1218

LATN699 **Independent Studies in Latin Literature**

(Perm req)

Contact department for information to register for this course.

LATN799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

LBSC Library Science Fall 2023

LBSC602 **Serving Information Needs**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC602, or both LBSC601 and LBSC650.

An introduction to the skills necessary to interact directly with individuals through the exploration of user behavior theory, strategies to locate and evaluate information from print and electronic resources, and policies and procedures to ensure that all individuals can become information literate.

IM01	Renee Hill Class time/details on ELMs	Seats (Total: 30) ONLINE
IM02	Ana Ndumu Tu 6:00pm - 8:45pm	Seats (Total: 30) HBK 2119

LBSC631 **Achieving Organizational Excellence**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC631 or LBSC635.

Overview of the principles, practices, and techniques required for effective leadership and management. The innovative strategies, management responsibilities, and skills needed to achieve and sustain high organizational performance in information-based cultural institutions.

IM01	Ryan O'Grady Class time/details on ELMs	Seats (Total: 30) ONLINE
IM02	Charles Duquette Th 6:00pm - 8:45pm	Seats (Total: 30) ESJ B0322

LBSC644 **Collection Development**

Prerequisite: LBSC602; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC 644 or LBSC 708G. Formerly: LBSC 708G.

Activities through which library collections are systematically developed and managed are explored, especially the formulation and implementation of written collection development policies. Other specific topics include identification of user needs; collection evaluation; fund allocation among competing departments, subjects, and/or media; selection methods; intellectual freedom; storage alternatives; and cooperative collection development.

IM01	Morgan Adle	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC645 **Literature and Materials for Children**

Restriction: Permission of INFO-College of Information Studies.

Survey of literature and other materials for children and youth. Criteria for evaluating and using such materials as they relate to the needs, interests, reading abilities, and other capabilities of young readers.

IM01	Jennifer Sturge	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC671 **The Lifecycle of Information**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC671, or LBSC670 and LBSC690.

Introduction to methods used to create, acquire, organize, manage and preserve information. Information systems currently used to support digital and physical libraries, databases, and repositories will be explored.

IM01	Kathy Weaver	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC702 **User Instruction**

Prerequisite: LBSC602; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Critical analysis of the rationale, content, and processes of user instruction in library and information settings.

IM01	Abbie Basile	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC707 **Field Study in Information Service**

Prerequisite: LBSC602, LBSC671, and LBSC631; and must have completed an additional 9 credits. Or permission of instructor. Restriction: Must be in Library and Information Science (Master's) program; and permission of INFO-College of Information Studies.

Supervised internship experience in a library, archive, museum, or other information organization.

IM01	Abbie Basile	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC708Y **Special Topics in Library and Information Science; Community Archives**

A special topics course with content determined by individual instructors. For questions about the content of the course contact the College of Information Studies.

IM01	Eric Hung	Seats (Total: 30)
	Tu 6:00pm - 8:45pm	HBK 0123

LBSC723 **Advocacy and Support for Information Services**

Restriction: Permission of INFO-College of Information Studies.

Role and influence of government, foundations, associations, and other organizations in supporting and setting the agenda for information services of all types. Role of information professionals in demonstrating advocacy, fund-raising, public relations, lobbying, and seeking external support.

IM01	Abbie Basile, James Donaldson	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC724 **Public Library Seminar**

Prerequisite: Permission of INFO-College of Information Studies.

Organization, support, and service patterns of public libraries. The public library in national, state, and local contexts.

IM01	Ryan O'Grady	Seats (Total: 30)
	M 2:00pm - 4:45pm	HBK 0115

LBSC731 **Special Collections**

Prerequisite: LBSC602; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Management of special collections, whose holdings may include manuscripts (particularly personal papers), non-textual materials, graphical materials, and rare books, with analysis of the custodial and management functions associated with special collections.

IM01	Victoria Van Hyning	Seats (Total: 30)
	M 2:00pm - 4:45pm	HBK 0109

LBSC742 **Collaborative Instructional Design and Evaluation**

Prerequisite: INST650; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

School librarians' collaborative role in instruction. Systematic design, development, and evaluation of instructional strategies and products for learning.

IM01	Kevin Washburn	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC749 **Internship in School Libraries**

Opportunities to observe and participate in the operation of school libraries at the elementary and secondary levels under the supervision of certified school librarians. Required of all School Library Media certification candidates.

IM01	Bridgette Comanda	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC751 **Research and Teaching Fellowship II**

Restriction: Permission of INFO-College of Information Studies.

Part of the Research and Teaching Fellowship program, a three-semester teacher training and professional development program in academic libraries. Fellows will complete weekly readings, complete weekly teaching reflections, and begin preparations for the academic job search.

IM01	Amber Pierdinock-Weed, Benjamin Shaw	Seats (Total: 7)
	Tu 11:00am - 11:50am	MCK 4100A

LBSC770 **Metadata and Tools for Information Professionals**

Prerequisite: LBSC671; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Principles, standards, and practices of information representation to facilitate accessing needed information in digital bibliographic environments. Includes exposure to Metadata, XML, RDA/AACR2R, DTDs, MARC, Dublin Core, MODS, ISBN and ISSN, FRBR, FRAD, Classification systems, and Controlled Vocabularies such as LCSH, SEARS, NLM, Getty and ERIC Thesauri, and others.

IM01	Michelle McDaniel	Seats (Total: 30)
	W 6:00pm - 8:45pm	HBK 2119

LBSC791 **Designing Principled Inquiry**

Prerequisite: LBSC671, LBSC602, and LBSC631; and additional 9 credits of coursework applied to the MLIS degree. Or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Critical analysis of roles of information professions and institutions in integrating theory, methods, practice, policies, and values of the field, and applying them to the design of future information systems and services.

IM01	Lesley Langa Class time/details on ELMs	Seats (Total: 30) ONLINE

LEAD Leadership Education and Development Fall 2023

LEAD217 **Introduction to Leadership**

Restriction: Freshman standing; or sophomore standing. Credit only granted for: LEAD217 or HESI217. Formerly: HESI217.

Surveys the study and practice of leadership and provides students with a variety of experiences to wrestle with large leadership questions. What is leadership? Who can be a leader? How is leadership an important aspect of understanding self and others? Students will explore and respond to these questions through a variety of leadership theories and models, self-assessments, critical reflection, active-learning, group projects, and research. The course will introduce students to critical theory and critical perspectives of leadership to help students broaden their perspectives on leadership and develop more complex thought and practice of leadership.

Students must pay a $32 materials fee. Contact leadershipstudies@umd.edu with questions.

0201	Anastasia Lavrenyuk TuTh 12:30pm - 1:45pm	Seats (Total: 25) ESJ B0320
0301	Noel Kuriakos MW 11:00am - 12:15pm	Seats (Total: 25) TWS 1321
0401	Noel Kuriakos TuTh 2:00pm - 3:15pm	Seats (Total: 25) TWS 0214
FC01	Anastasia Lavrenyuk TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) TWS 0234
FC02	Pamela Scott MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) EDU 3236

LEAD315 **Leadership in Groups and Organizations**

(Perm req)

Prerequisite: LEAD217 or HESI217. Credit only granted for: LEAD315 or HESI315. Formerly: HESI315.

Assists students in acquiring and integrating leadership knowledge within group and organizational contexts. Individual (self), relational (others), and contextual (context) influences on leadership will be examined using theories and frameworks that will help students learn to navigate complex organizational environments and practice leadership that is process-based and relationship-oriented. Through hands-on activities, personal exploration, and critical analysis of leadership within groups and organizations, students will gain greater insight into the historical, cultural, and environmental elements of leadership.

This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide opportunities or virtual, project-based, international collaboration. Learn more Global Classrooms: go.umd.edu/gci. Email leadershipstudies@umd.edu for permission to enroll. Students must pay a $15 materials fee.

0501	Pamela Scott	Seats (Total: 20)
	W 10:00am - 12:45pm	ATL 1434

LEAD320 **Social Action Seminar**

Prerequisite: HESI217 or LEAD 217; and HESI315 or LEAD315. Restriction: Must be in the Leadership Studies Minor or Leadership Studies Certificate program. Credit only granted for: HESI320 or LEAD320. Formerly: HESI320. Additional information: May fulfill a requirement for the Leadership Studies Certificate only if taken sequentially with LEAD321 course.

The purpose of the Social Action Sequence (LEAD 320 & LEAD 321) is to examine the connections between leadership and social change, and learn how our own leadership knowledge and practice can be used to advance progress toward more just and equitable communities. In LEAD 320 (2-credits), students will have the opportunity to conduct a semester-long project to increase their knowledge and understanding of a social issue of their interest, and design resources and an action plan for engaging in work related to this social issue in their own communities.

0101	Brittany Devies	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

LGBT Lesbian Gay Bisexual Transgender Studies — Fall 2023

LGBT200 **Introduction to Lesbian, Gay, Bisexual, and Transgender Studies**

Credit only granted for: LGBT200.

An interdisciplinary study of the historical and social contexts of personal, cultural and political aspects of LGBT life. Sources from a variety of fields, such as anthropology, history, psychology, sociology, and women's studies, focusing on writings by and about LGBT people.

0101	Elece Smith, Will Mosley MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 23) LEF 2166 ONLINE	Discussion
0102	Will Mosley, Elece Smith MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 23) LEF 2166 ONLINE	Discussion
FC01	Jessica Mathiason TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 15) SQH 1121	

LGBT265 **LGBTQ+ Literatures and Media**

Restriction: Must not have completed LGBT265. Cross-listed with: ENGL265. Credit only granted for: ENGL265 or LGBT265.

A study of literary and cultural expressions of queer and trans identities, positionalities, and analytics through an exploration of literature, art, and media. We will examine historical and political power relations by considering the intersections of sexuality and gender with race, class, nation, and disability. Topics include the social construction and regulation of sexuality and gender, performance and performativity, intersectionality, and the relationship between aesthetic forms and queer/ trans subjectivity. Our interpretations will be informed by queer and trans theories.

0101	Tyra Griffin TuTh 12:30pm - 1:45pm	Seats (Total: 30) TWS 0221
0201	Dylan Lewis TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 1106

LGBT310 **Transgender Studies**

Cross-listed with: WGSS310. Credit only granted for: LGBT310, WMST310 or WGSS310.

Introduces students to the interdisciplinary field of transgender studies, providing a history of the field and engaging current debates within it. Students will explore the emergence and consolidation of trans identities, practices, cultures, and knowledges across medical, historical, sociological, cultural, and artistic contexts, paying particular attention to dynamics of race, class, and ability, to global and transnational difference, and to the implications of transgender studies for understanding gender and sexuality overall.

0101	Damien Hagen MWF 11:00am - 11:50am	Seats (Total: 25) SQH 1121

LGBT350 **Lesbian, Gay, Bisexual, and Transgender People and Communication**

(Perm req)

Prerequisite: LGBT200. Restriction: Must have permission of LGBT Studies Program.

Guides students through oral communication skills around LGBTQ+ topics. The course centers the experiences of minoritized intersectional LGBTQ+ communities, and students will use speaking, presentation, and facilitation skills to educate the UMD community about sexual orientation and gender identity and expression through panel discussions in classes, residence halls, and other university settings. Students who have received training for this purpose enter into these discussions prepared to disseminate accurate information, to answer questions that students, staff, and faculty may have about the realities of LGBTQ+ lives. Students will receive training that is rooted in queer theory and social justice education, building on the prerequisite course LGBT 200.

0101	Shantala Thompson Th 4:00pm - 6:00pm Class time/details on ELMs	Seats (Total: 12) LEF 1221 ONLINE

LGBT386 **Lesbian, Gay, Bisexual, and Transgender Community Organization Internship**

(Perm req)

Prerequisite: 9 credits in LGBT courses. Restriction: Permission of LGBT Studies Program.

Supervised internship experience with a community organization that expressly serves lesbian, gay, bisexual, and transgender people. Students will be expected to relate course material to experience in an analysis of an organization's activities.

Contact department for information to register for this course.

LGBT448L **Special Topics in Lesbian, Gay, Bisexual, and Transgender Studies; Black Queer Studies**

In-depth study of particular themes and issues in LGBT studies.

Cross-listed with AASP498Y. Credit only granted for LGBT448L or AASP498Y.

0101	Sydney Lewis MW 2:00pm - 3:15pm	Seats (Total: 30) SQH 2120

LGBT448Y **Special Topics in Lesbian, Gay, Bisexual, and Transgender Studies; Dickinson, Erotics, Poetics, Biopics: Some (Queer) Ways We Read Poetry**

In-depth study of particular themes and issues in LGBT studies.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Cross-listing with ENGL439D and WGSS498Y. Credit only granted for ENGL439D, LGBT448Y, WGSS498Y, or WMST498Y.

0101	Hillary Roegelein TuTh 12:30pm - 1:45pm	Seats (Total: 15) ONLINE

LGBT459D **Selected Topics in Sexuality and Literature; Life Writings in Different Media**

Detailed study of sexuality as an aspect of literary and cultural expression.

Cross-listed with ENGL459C. Credit only granted for ENGL459C or LGBT459D.

0101	John Tobin TuTh 3:30pm - 4:45pm	Seats (Total: 20) TWS 1313	

LGBT499 **Independent Study**

(Perm req)

Directed research and analysis in LGBT Studies on a topic selected by the student.

Contact department for information to register for this course.

LING Linguistics Fall 2023

LING200 **Introductory Linguistics**

Credit only granted for: HESP120 or LING200. Additional information: This course serves as the prerequisite for further courses in linguistics.

An exploration of the nature of human language. Introduction to the basic concepts and methodology of modern linguistic analysis (sound systems, word formation, sentence structure). Examination of the factors that contribute to dialect differences and the social implications of language variation. Additional topics may include: semantics, pragmatics, language change, writing systems, typology, language universals, comparison with other communication systems.

0101	Margaret Antonisse MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 30) MMH 1400 MMH 1304	 Discussion
0102	Margaret Antonisse MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 30) MMH 1400 MMH 1304	 Discussion
0104	Margaret Antonisse MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) MMH 1400 MMH 1304	 Discussion

LING240 **Language and Mind**

Prerequisite: Minimum grade of C- in LING200. Additional information: Required for Linguistics majors and recommended for students in related fields.

The study of language as a cognitive phenomenon. Ways of representing people's knowledge of their native language, ways in which that knowledge is attained naturally by children, and how it is used in speaking and listening. Additional topics may include: animal communication, language and the brain, language and thought.

0101	Tonia Bleam	Seats (Total: 50)
	MWF 11:00am - 11:50am	TWS 1107

LING248 **Introduction to Laboratory Research in Linguistics**

(Perm req)

Individualized, collaborative research course aimed at developing skills for laboratory research in language acquisition, sentence processing or neurolinguistics. Learning to conduct research in laboratory linguistics as part of a research team that will create original research in the field.

0101	Valentine Hacquard	Seats (Total: 5)
	Contact instructor or department for details.	

LING248T **Introduction to Laboratory Research in Linguistics**

Individualized, collaborative research course aimed at developing skills for laboratory research in language acquisition, sentence processing or neurolinguistics. Learning to conduct research in laboratory linguistics as part of a research team that will create original research in the field.

0101	Andrea Zukowski	Seats (Total: 10)
	Contact instructor or department for details.	

LING262 **HERITAGE LANGUAGES AND THEIR SPEAKERS**

Additional information: One class per week will be in-field instruction in collecting data from heritage speakers.

An interdisciplinary examination of the phenomenon of heritage language (a bilingual's home language which is distinct from the dominant language of the wider society). Relationship between linguistic structure, cultural and social aspects of language use, and language change. Interpretations of experimental and theoretical work. Relevance of heritage languages for linguistic theory, language policy, and education.

0101	Maria Polinsky	Seats (Total: 30)
	TuTh 9:30am - 10:45am	MMH 1304

LING311 **Syntax I**

Prerequisite: LING240.

Basic concepts, analytical techniques of generative syntax, relation to empirical limits imposed by viewing grammars as representations of a component of human mind. Aspects of current theories.

0101	Anna Grabovac	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	MMH 1304

LING320 **Phonetics**

Prerequisite: Minimum grade of C- in LING200 or LING240. Additional information: This course counts as a core course for the linguistics major. Only one of Ling320 or HESP403 can be used to count towards the Linguistics major.

Representations and models of acoustic and articulatory phonetics. Develops concepts and skills for description, measurement and scientific analysis of the sound systems of human languages, including various varieties of English.

0101	William Idsardi	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

LING321 **Phonology I**

Prerequisite: LING240.

Properties of sound systems of human languages, basic concepts and analytical techniques of generative phonology. Empirical limits imposed by viewing grammars as cognitive representations. Physiological properties and phonological systems; articulatory phonetics and distinctive feature theory.

0101	Margaret Antonisse	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	MMH 1304

LING410 **Grammar and Meaning**

Prerequisite: Permission of instructor; or LING311.

The basic notions of semantic theory: reference, quantification, scope relations, compositionality, thematic relations, tense and time, etc. The role these notions play in grammars of natural languages. Properties of logical form and relationship with syntax.

0101	Valentine Hacquard	Seats (Total: 30)
	MW 10:00am - 11:15am	MMH 1304

LING419D **Topics in Syntax; Perspectives on WH-Movement**

Topics vary.

Prerequisites: LING311. Examination of how wh-questions are formed across languages. Exploration of classic and recent theories of wh-movement, with the goal of accounting for cross-linguistic variation. Investigation of similarities and differences between wh-movement and focalization, two different types of A-bar movement.

0101	Luisa Seguin	Seats (Total: 10)
	MW 12:00pm - 1:15pm	MMH 1304

LING429A **Topics in Phonology; Features in Phonology**

Advanced seminar in phonology. Topics vary.

Most theories of phonology recognize the existence of sub-phonemic units known as phonological features. This course examines the use of features in structuralist and generative theories of phonology. While the status of features as the basic representational unit of phonology is perhaps the best example of an ontological consensus in phonology, recent research has turned to some basic questions regarding their nature: are features imbued with phonetic content or are they purely mental symbolic markers?

0101	Alexander Chabot TuTh 3:30pm - 4:45pm	Seats (Total: 20) MMH 1304

LING440 **Grammars and Cognition**

Prerequisite: LING321 and LING311.

Relationship between the structure, development and functioning of grammars and the structure, development and functioning of other mental systems. Interpretations of experimental and observational work on children's language, aphasia, speech production and comprehension.

0101	Ellen Lau MW 2:00pm - 3:15pm	Seats (Total: 25) MMH 1304

LING448 **Advanced Laboratory Research in Linguistics**

(Perm req)

Individualized, collaborative research course aimed at developing skills for laboratory research in language acquisition, sentence processing or neurolinguistics. Conducting a research project in laboratory linguistics as part of a team creating original research relevant to current issues in linguistics.

0101	Valentine Hacquard Contact instructor or department for details.	Seats (Total: 5)

LING449D **Topics in Psycholinguistics; Prediction in Language Processing**

Critical evaluation of primary research in psycholinguistics. Relating theoretical hypotheses to experimental hypotheses and predictions. Evaluation of experimental results. Emphasis on hands-on experience and experimental methodologies. Specific topics vary.

Prerequisites: LING311. Examination of the role of prediction in real-time language processing. Methodologies and approaches to studying prediction in adults and children, and how different measures reveal underlying mechanisms. Focuson argument structure.

0101	Eun-Kyoung Lee TuTh 12:30pm - 1:45pm	Seats (Total: 10) MMH 1304

LING449V **Topics in Psycholinguistics; Language and Vision**

Critical evaluation of primary research in psycholinguistics. Relating theoretical hypotheses to experimental hypotheses and predictions. Evaluation of experimental results. Emphasis on hands-on experience and experimental methodologies. Specific topics vary.

Prerequisites: LING311 and LING321. An exploration of the computations and conceptual representations shared between linguistic and visual processing, providing a cognitive neuroscience context for the study of language. An investigation of how language processing involves interactions between the language system and other cognitive systems.

0101	Xinchi Yu TuTh 3:30pm - 4:45pm	Seats (Total: 10) WDS 1131

LING499 **Directed Studies in Linguistics**

(Perm req)

Independent study or research on language under the supervision of a faculty member.

Contact department for information to register for this course.

LING499C **Directed Studies in Linguistics; Teaching Assistantship**

(Perm req)

Independent study or research on language under the supervision of a faculty member.

Designed for students that will be teaching assistants for LING200.

0101	Margaret Antonisse Contact instructor or department for details.	Seats (Total: 4)
0201	Tonia Bleam Contact instructor or department for details.	Seats (Total: 4)

LING499H **Directed Studies in Linguistics**

(Perm req)

Independent study or research on language under the supervision of a faculty member.

Contact department for information to register for this course.

LING610 **Syntactic Theory**

Prerequisite: LING312.

Intensive introduction to transformational syntax.

0101	Juan Uriagereka TuTh 2:00pm - 3:15pm	Seats (Total: 15) MMH 1108B

LING620 **Phonological Theory**

Prerequisite: LING322.

Topics in current phonological theory, as they relate to data from various languages. Segmental and prosodic analysis. Autosegmental theory, metrical theory, etc.

0101	Naomi Feldman TuTh 11:00am - 12:15pm	Seats (Total: 10) MMH 1108B

LING640 **Psycholinguistics**

(Perm req)

Restriction: Permission of instructor.

Core graduate course in psycholinguistics, covering leading theoretical approaches and experimental methods in language acquisition, language processing, and neurolinguistics.

0101	Colin Phillips MW 12:00pm - 1:30pm	Seats (Total: 20) MMH 1108B

LING660 **Introduction to Semantics**

(Perm req)

Restriction: Permission of instructor.

Basic concepts and methods of contemporary semantic theory including basic set theory, elementary propositional and predicate calculus, the structure of predicates and propositions, quantification binding. Prepares students for study of more advanced topics in semantics.

Cross-listed with PHIL688T. Credit granted for LING660 or PHIL688T.

0101	Alexander Williams TuTh 9:30am - 10:45am	Seats (Total: 15) MMH 1108B

LING689 **Independent Study**

Independent studies in grammatical theory.

Contact department for information to register for this course.

LING698 **Directed Study; Seminar**

0101	Howard Lasnik F 3:00pm - 5:00pm	Seats (Total: 10) Location: TBA

LING698T **Directed Study; Pedagogy for Linguistics**

Required for LING200 Teaching Assistants.

0101	Margaret Antonisse	Seats (Total: 6)
	Contact instructor or department for details.	

LING723 **Natural Language Processing**

Prerequisite: Minimum grade of C- in CMSC422; and permission of CMNS-Computer Science department. Cross-listed with: CMSC723, INST735. Credit only granted for: CMSC723, LING723, or INST735. Additional information: CMSC students may only receive PhD Comp. credit for CMSC723 or CMSC823, not both.

Introduce fundamental concepts, techniques, and algorithms for the computational handling of natural language. Statistical and machine learning techniques, models, and algorithms that enable computers to deal with the ambiguity and implicit structure of human language. Approaches that focus on uncovering linguistic structure, such as syntactic or semantic parsing, as well as those that focus on manipulating text in useful ways, such as question answering or machine translation.

0101	Marine Carpuat	Seats (Total: 80)
	MW 2:00pm - 3:15pm	IRB 1116

LING798 **Research Papers in Linguistics**

(Perm req)

Contact department for information to register for this course.

LING799 **Master's Thesis Research**
Contact department for information to register for this course.

LING819G **Seminar in Syntactic Theory**

Current topics in research on syntactic theory.

0101	Alexander Williams	Seats (Total: 10)
	M 2:00pm - 5:00pm	MMH 1108B

LING848P **Seminar in Computational Linguistics; Computational Pragmatics**

Current topics in research in computational linguistics.

0101	Philip Resnik	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	EGR 1110

LING869D **Seminar in Neurolinguistics; Cognitive Neuroscience of Language**

Current topics in research on neurolinguistics.

Cognitive neuroscience of language, including EEG, MEG and fMRI methods.

0101	Ellen Lau	Seats (Total: 10)
	MW 10:00am - 11:15am	MMH 1108B

LING879P **Seminar in Semantics**

Current topics in research in semantics.

0101	Valentine Hacquard W 2:00pm - 5:00pm	Seats (Total: 15) MMH 1108B

LING888 **Doctoral Research Paper**

Students will strengthen their abilities to formulate coherent research questions, conduct research and create a publishable piece of work. In addition, the course is part of a set of requirements to advance to doctoral candidacy.

0101	Howard Lasnik Contact instructor or department for details.	Seats (Total: 3)
0201	Norbert Hornstein Contact instructor or department for details.	Seats (Total: 3)
0301	Tonia Bleam Contact instructor or department for details.	Seats (Total: 3)
0401	Jeffrey Lidz Contact instructor or department for details.	Seats (Total: 3)
0501	Andrea Zukowski Contact instructor or department for details.	Seats (Total: 3)
0601	Juan Uriagereka Contact instructor or department for details.	Seats (Total: 3)
0701	Amy Weinberg Contact instructor or department for details.	Seats (Total: 3)
0801	William Idsardi Contact instructor or department for details.	Seats (Total: 3)
0901	Philip Resnik Contact instructor or department for details.	Seats (Total: 3)
1001	Maria Polinsky Contact instructor or department for details.	Seats (Total: 3)
1101	Paul Pietroski Contact instructor or department for details.	Seats (Total: 3)

1201	Colin Phillips Contact instructor or department for details.	Seats (Total: 3)
1301	Margaret Antonisse Contact instructor or department for details.	Seats (Total: 3)
1401	Valentine Hacquard Contact instructor or department for details.	Seats (Total: 3)
1501	Alexander Williams Contact instructor or department for details.	Seats (Total: 3)
1601	Naomi Feldman Contact instructor or department for details.	Seats (Total: 3)
1701	Ellen Lau Contact instructor or department for details.	Seats (Total: 3)
1801	Omer Preminger Contact instructor or department for details.	Seats (Total: 3)

LING889 **Directed Research**
Contact department for information to register for this course.

LING896 **Research Paper in Minor Area**

Prerequisite: LING888.

This course is designed to strengthen the students' ability to do research in a minor area of expertise, and to help them create a publishable piece. In addition, the course constitutes part of a set of requirements to advance to doctoral candidacy.

Contact department for information to register for this course.

LING898 **Pre-Candidacy Research**
Contact department for information to register for this course.

LING899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

MATH Mathematics Fall 2023

MATH003 **Developmental Mathematics**

A review of Intermediate High School Algebra intended for students preparing for one of the credit bearing Fundamental Studies Math Courses. It is taught in special computer labs using a self-paced computer program. The curriculum will be geared toward the student's level of algebra skills and eventual goals. There is a special fee for the course that may be applied in addition to the regular tuition charge. Students should refer to the schedule of classes for details on fees as they apply to a particular semester. The course does not carry any credit toward any degree at the University. The course is repeatable. Topics will be chosen from exponents, polynomials, linear equations, quadratic equations as well as polynomial, rational, exponential and logarithm functions and elementary probability or statistics, depending on the student.

There is a special fee for this class in addition to the regular tuition charge.

0102	Matthew Wilson MWF 9:00am - 10:50am *Restricted to students in the uTERP Program only.*	Seats (Total: 20) MTH B0429
0201	Victoria Whitley MWF 10:00am - 11:50am	Seats (Total: 45) CEN 0200
0202	Victoria Whitley MWF 10:00am - 11:50am	Seats (Total: 30) PHY 4220
0601	Colleen Terpos TuTh 8:00am - 10:45am	Seats (Total: 45) CEN 0200
0602	Colleen Terpos TuTh 8:00am - 10:45am	Seats (Total: 45) PHY 4220
0701	Colleen Terpos TuTh 11:00am - 1:45pm	Seats (Total: 45) CEN 0200
0702	Colleen Terpos TuTh 11:00am - 1:45pm	Seats (Total: 30) PHY 4220
FC01	Aaron Large MW 6:00pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) CEN 0200
FC02	Aaron Large MW 6:00pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) PHY 4220

MATH007 Algebra for MATH 107

A review of Intermediate High School Algebra intended for students preparing for MATH107. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH107, the same semester, which also meets 5 days per week. Continuation in MATH107 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include linear equations, linear inequalities, operations on polynomials, factoring, solutions of quadratic equations, as well as exponential and logarithm functions. MATH007 does not carry any credit toward any degree at the University, nor is it graded. It leads to either MATH107 or MATH003, both of which are graded.

There is a special fee for this class in addition to the regular tuition charge.

1101	Morgan Bryant MTuWThF 11:00am - 11:50am	Seats (Total: 25) PHY 4222
1201	Debra Franklin MTuWThF 1:00pm - 1:50pm	Seats (Total: 25) PHY 4222

MATH013 **Algebra for MATH 113**

A review of Intermediate High School Algebra intended for students preparing for MATH113. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH113, the same semester, which also meets 5 days per week. Continuation in MATH113 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations, quadratic equations, as well as polynomial, rational, exponential, and logarithm functions, and trigonometry. MATH013 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH113 (or MATH107), or MATH003, all of which are graded.

There is a special fee for this class in addition to the regular tuition charge.

1101	Aquia Richburg MTuWThF 9:00am - 9:50am	Seats (Total: 25) MTH 0402
1201	Steven Sax MTuWThF 11:00am - 11:50am	Seats (Total: 26) MTH 0402
1301	Steven Sax MTuWThF 12:00pm - 12:50pm	Seats (Total: 26) MTH 0402
1401	Steven Sax MTuWThF 1:00pm - 1:50pm	Seats (Total: 26) MTH 0402

MATH015 **Algebra for MATH 115**

A review of Intermediate High School Algebra intended for students preparing for MATH115. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH115, the same semester, which also meets 5 days per week. Continuation in MATH115 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations in one and two variables, quadratic equations, as well as polynomial, rational, exponential, logarithm functions and trigonometry. MATH015 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH115 (or MATH107 or MATH113), or MATH003, all of which are graded.

There is a special fee for this class in addition to the regular tuition charge.

1101	Tyler Simmons MTuWThF 9:00am - 9:50am	Seats (Total: 25) ATL 1109
1201	Jermain McDermott MTuWThF 11:00am - 11:50am	Seats (Total: 25) ATL 1109
1301	Ben Bezejouh MTuWThF 12:00pm - 12:50pm	Seats (Total: 26) ATL 1109
1401	Ben Bezejouh MTuWThF 1:00pm - 1:50pm	Seats (Total: 25) ATL 1109

MATH107 **Introduction to Math Modeling and Probability**

Prerequisite: Must have math eligibility of MATH107 or higher; and math eligibility is based on Math Placement Exam or successful completion of MATH003 with appropriate eligibility. Restriction: Not open to students majoring in mathematics, engineering, business, life sciences, and the physical sciences; must not have completed STAT100, MATH113, MATH120, MATH135, MATH136 or MATH140 with a C- or better; must not have completed any MATH or STAT course with a prerequisite of MATH120, MATH136, or MATH140. Formerly: MATH110 and MATH111.

A goal is to convey the power of mathematics as shown by a variety of problems which can be modeled and solved by quantitative means. Also included is an introduction to probability. Topics include data analysis, equations, systems of equations, inequalities, elementary linear programming, Venn diagrams, counting, basic probability, permutations, combinations, tree diagrams, standard normal and normal distributions. The mathematics of finance is covered. The course includes problem solving and decision making in economics, management, and social sciences.

0101	Renata Valieva MWF 11:00am - 11:50am	Seats (Total: 27) MTH B0425
0201	Ergun Kacar MWF 12:00pm - 12:50pm	Seats (Total: 25) MTH B0425

0301	Ergun Kacar MWF 1:00pm - 1:50pm	Seats (Total: 25) MTH B0425	
0401	Ayala Nuriely Kimel TuTh 2:00pm - 3:15pm	Seats (Total: 27) MTH 0102	
FC01	Julie Daberkow MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) MTH 0103	

MATH113 **College Algebra and Trigonometry**

Prerequisite: Must have math eligibility of MATH113 or higher; and math eligibility is based on the Math Placement Exam or the successful completion of MATH 003 with appropriate eligibility. Restriction: Must not have completed MATH115, MATH120, MATH135, MATH136 or MATH140 with a grade of C- or higher; and must not have completed any course with a prerequisite of MATH120, MATH130, MATH136, or MATH140. Credit only granted for: MATH113 or MATH115.

Topics include elementary functions including graphs and applications of: polynomial, rational, exponential, and logarithmic functions. Systems of equations and applications. Trigonometric functions: angle and radian measure, graphs and applications.

0111	Barbara Michelato TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 30) ARM 0131 MTH B0427	Discussion
0112	Barbara Michelato TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 30) ARM 0131 MTH 0304	Discussion
0121	Barbara Michelato TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 30) ARM 0131 MTH B0427	Discussion
0122	Barbara Michelato TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 30) ARM 0131 MTH 0304	Discussion
0131	Barbara Michelato TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 30) ARM 0131 MTH B0427	Discussion

0132	Barbara Michelato TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 32) ARM 0131 MTH 0305	Discussion
0141	Barbara Michelato TuTh 9:30am - 10:45am W 2:00pm - 2:50pm	Seats (Total: 30) ARM 0131 MTH B0427	Discussion
0142	Barbara Michelato TuTh 9:30am - 10:45am W 2:00pm - 2:50pm	Seats (Total: 31) ARM 0131 MTH 0305	Discussion
0211	Barbara Michelato TuTh 11:00am - 12:15pm W 10:00am - 10:50am	Seats (Total: 31) ARM 0131 MTH 0307	Discussion
0212	Barbara Michelato TuTh 11:00am - 12:15pm W 10:00am - 10:50am	Seats (Total: 31) ARM 0131 MTH 0303	Discussion
0221	Barbara Michelato TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 31) ARM 0131 MTH 0307	Discussion
0222	Barbara Michelato TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 31) ARM 0131 MTH 0303	Discussion
0231	Barbara Michelato TuTh 11:00am - 12:15pm W 1:00pm - 1:50pm	Seats (Total: 31) ARM 0131 MTH 0106	Discussion
0241	Barbara Michelato TuTh 11:00am - 12:15pm W 2:00pm - 2:50pm	Seats (Total: 31) ARM 0131 MTH 0106	Discussion
FC01	Jocelyn Menecio TuTh 6:00pm - 7:15pm F 9:00am - 9:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ARM 0131 MTH 0101	Discussion

FC02	Jocelyn Menecio TuTh 6:00pm - 7:15pm F 10:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ARM 0131 MTH 0306	Discussion
FC03	Jocelyn Menecio TuTh 6:00pm - 7:15pm F 11:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ARM 0131 MTH 0306	Discussion
FC04	Jocelyn Menecio TuTh 6:00pm - 7:15pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ARM 0131 MTH 0306	Discussion

MATH115 **Precalculus**

Prerequisite: Must have math eligibility of MATH115 or higher; and math eligibility is based on the Math Placement Exam or the successful completion of MATH003 with appropriate eligibility. Or MATH113. Restriction: Must not have completed MATH140 with a grade of C- or better; and must not have completed any MATH or STAT course with a prerequisite of MATH140 or MATH141. Credit only granted for: MATH113 or MATH115.

Preparation for MATH120, MATH130 or MATH140. Elementary functions and graphs: polynomials, rational functions, exponential and logarithmic functions, trigonometric functions. Algebraic techniques preparatory for calculus.

0111	Raluca Rosca MWF 9:00am - 9:50am MWF 10:00am - 10:50am	Seats (Total: 28) ESJ 0202 PHY 4207	Lab
0121	Raluca Rosca MWF 9:00am - 9:50am MWF 11:00am - 11:50am	Seats (Total: 28) ESJ 0202 PHY 4207	Lab
0131	Raluca Rosca MWF 9:00am - 9:50am MWF 12:00pm - 12:50pm	Seats (Total: 28) ESJ 0202 PHY 4207	Lab
0141	Raluca Rosca MWF 9:00am - 9:50am MWF 1:00pm - 1:50pm	Seats (Total: 28) ESJ 0202 PHY 4207	Lab

0151	Raluca Rosca MWF 9:00am - 9:50am MWF 2:00pm - 2:50pm	Seats (Total: 28) ESJ 0202 PHY 4207	 Lab
0161	Raluca Rosca MWF 9:00am - 9:50am MWF 3:00pm - 3:50pm	Seats (Total: 28) ESJ 0202 PHY 4207	 Lab
0171	Raluca Rosca MWF 9:00am - 9:50am TuTh 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4207	 Lab
0181	Raluca Rosca MWF 9:00am - 9:50am TuTh 11:00am - 12:15pm	Seats (Total: 28) ESJ 0202 PHY 4207	 Lab
0191	Raluca Rosca MWF 9:00am - 9:50am TuTh 12:30pm - 1:45pm	Seats (Total: 28) ESJ 0202 PHY 4207	 Discussion
0192	Raluca Rosca MWF 9:00am - 9:50am TuTh 2:00pm - 3:15pm	Seats (Total: 28) ESJ 0202 PHY 4207	 Discussion
FC01	Sean Gruber MW 3:00pm - 4:15pm F 9:00am - 9:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) BPS 1250 MTH 0302	 Discussion
FC02	Sean Gruber MW 3:00pm - 4:15pm F 10:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) BPS 1250 MTH 0302	 Discussion
FC03	Sean Gruber MW 3:00pm - 4:15pm F 11:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) BPS 1250 MTH 0302	 Discussion

FC04	Sean Gruber MW 3:00pm - 4:15pm F 1:00pm - 1:50pm	Seats (Total: 30) BPS 1250 MTH 0302	Discussion
	Restricted to students in Freshmen Connection.		

MATH120 **Elementary Calculus I**

Prerequisite: 1 course with a minimum grade of C- from (MATH113, MATH115). Or must have math eligibility of MATH120 or higher; and math eligibility is based on the Math Placement Test. Restriction: Not open to students majoring in mathematics, engineering, the biological sciences, biochemistry, chemistry, or the physical sciences; Must not have completed MATH130, MATH136 or MATH140 with a grade of C- or higher. Formerly: MATH220.

Basic ideas of differential and integral calculus, with emphasis on elementary techniques of differentiation and applications.

0111	Archana Khurana MWF 10:00am - 10:50am Th 8:00am - 8:50am	Seats (Total: 30) ESJ 0224 HJP 2242	Discussion
0112	Archana Khurana MWF 10:00am - 10:50am Th 8:00am - 8:50am	Seats (Total: 30) ESJ 0224 HJP 2242	Discussion
0121	Archana Khurana MWF 10:00am - 10:50am Th 9:00am - 9:50am	Seats (Total: 29) ESJ 0224 HJP 2242	Discussion
0122	Archana Khurana MWF 10:00am - 10:50am Th 9:00am - 9:50am	Seats (Total: 29) ESJ 0224 HJP 2242	Discussion
0131	Archana Khurana MWF 10:00am - 10:50am Th 10:00am - 10:50am	Seats (Total: 30) ESJ 0224 HJP 2242	Discussion
0132	Archana Khurana MWF 10:00am - 10:50am Th 10:00am - 10:50am	Seats (Total: 29) ESJ 0224 HJP 2242	Discussion
0141	Archana Khurana MWF 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 30) ESJ 0224 HJP 2242	Discussion

0142	Archana Khurana MWF 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 29) ESJ 0224 HJP 2242	Discussion
0211	Timothy Pilachowski MWF 1:00pm - 1:50pm Tu 8:00am - 8:50am	Seats (Total: 29) PHY 1412 ESJ 0215	Discussion
0212	Timothy Pilachowski MWF 1:00pm - 1:50pm Tu 8:00am - 8:50am	Seats (Total: 29) PHY 1412 ESJ 0215	Discussion
0221	Timothy Pilachowski MWF 1:00pm - 1:50pm Tu 9:00am - 9:50am	Seats (Total: 29) PHY 1412 ESJ 0215	Discussion
0222	Timothy Pilachowski MWF 1:00pm - 1:50pm Tu 9:00am - 9:50am	Seats (Total: 29) PHY 1412 ESJ 0215	Discussion
0231	Timothy Pilachowski MWF 1:00pm - 1:50pm Tu 10:00am - 10:50am	Seats (Total: 29) PHY 1412 ESJ 0215	Discussion
0232	Timothy Pilachowski MWF 1:00pm - 1:50pm Tu 10:00am - 10:50am	Seats (Total: 29) PHY 1412 ESJ 0215	Discussion
0241	Timothy Pilachowski MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 29) PHY 1412 HJP 2242	Discussion
0242	Timothy Pilachowski MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 30) PHY 1412 HJP 2242	Discussion
0311	Peter Dillery TuTh 11:00am - 12:15pm M 11:00am - 11:50am	Seats (Total: 30) ARM 0126 MTH B0429	Discussion

0312	Peter Dillery TuTh 11:00am - 12:15pm M 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH 0407	Discussion
0321	Peter Dillery TuTh 11:00am - 12:15pm M 12:00pm - 12:50pm	Seats (Total: 30) ARM 0126 MTH B0429	Discussion
0322	Peter Dillery TuTh 11:00am - 12:15pm M 12:00pm - 12:50pm	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0331	Peter Dillery TuTh 11:00am - 12:15pm M 1:00pm - 1:50pm	Seats (Total: 30) ARM 0126 MTH B0429	Discussion
0332	Peter Dillery TuTh 11:00am - 12:15pm M 1:00pm - 1:50pm	Seats (Total: 29) ARM 0126 MTH 0407	Discussion
0341	Peter Dillery TuTh 11:00am - 12:15pm M 2:00pm - 2:50pm	Seats (Total: 30) ARM 0126 MTH B0429	Discussion
0342	Peter Dillery TuTh 11:00am - 12:15pm M 2:00pm - 2:50pm	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0411	Jenna Zomback TuTh 12:30pm - 1:45pm W 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH B0429	Discussion
0421	Jenna Zomback TuTh 12:30pm - 1:45pm W 12:00pm - 12:50pm	Seats (Total: 30) ARM 0126 MTH B0429	Discussion
0431	Jenna Zomback TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 29) ARM 0126 MTH B0429	Discussion

0441	Jenna Zomback TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 29) ARM 0126 MTH B0429	Discussion
FC01	Jason Schultz TuTh 6:00pm - 7:15pm F 9:00am - 9:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) CSI 1115 MTH 0303	Discussion
FC02	Jason Schultz TuTh 6:00pm - 7:15pm F 10:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) CSI 1115 MTH 0303	Discussion
FC03	Jason Schultz TuTh 6:00pm - 7:15pm F 11:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) CSI 1115 MTH 0303	Discussion
FC04	Jason Schultz TuTh 6:00pm - 7:15pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) CSI 1115 MTH B0427	Discussion

MATH121 **Elementary Calculus II**

Prerequisite: MATH120, MATH130, MATH136, or MATH140. Restriction: Not open to students majoring in mathematics, engineering, the biological sciences, biochemistry, chemistry, or the physical sciences; Must not have completed MATH141 with a grade of C- or higher. Formerly: MATH221.

Trigonometric functions, techniques of integration, infinite series, differential equations, probability.

0201	Tobias von Petersdorff MWF 1:00pm - 1:50pm	Seats (Total: 20) MTH 1308	

MATH135 **Discrete Mathematics for Life Sciences**

Prerequisite: Minimum grade of C- in MATH113 or MATH115; or must have math eligibility of MATH120 or higher; and math eligibility is based on the Math Placement Test. Restriction: Must be in the Biological Sciences or Neuroscience major; and not open to students majoring in mathematics, engineering, or the physical sciences.

Basic discrete mathematics, with emphasis on relevant models and techniques to the life sciences.

0111	Todd Rowland	Seats (Total: 25)	
	MWF 2:00pm - 2:50pm	PHY 1412	
	WF 8:00am - 8:50am	MTH 0105	Discussion
0112	Todd Rowland	Seats (Total: 25)	
	MWF 2:00pm - 2:50pm	PHY 1412	
	W 8:00am - 8:50am	AJC 2121	Discussion
	F 8:00am - 8:50am	MTH 0305	Discussion
0121	Todd Rowland	Seats (Total: 25)	
	MWF 2:00pm - 2:50pm	PHY 1412	
	WF 9:00am - 9:50am	MTH 0105	Discussion
0122	Todd Rowland	Seats (Total: 25)	
	MWF 2:00pm - 2:50pm	PHY 1412	
	W 9:00am - 9:50am	AJC 2121	Discussion
	F 9:00am - 9:50am	MTH 0305	Discussion
0131	Todd Rowland	Seats (Total: 25)	
	MWF 2:00pm - 2:50pm	PHY 1412	
	WF 10:00am - 10:50am	MTH 0105	Discussion
0132	Todd Rowland	Seats (Total: 25)	
	MWF 2:00pm - 2:50pm	PHY 1412	
	W 10:00am - 10:50am	AJC 2121	Discussion
	F 10:00am - 10:50am	MTH 0305	Discussion
0141	Todd Rowland	Seats (Total: 25)	
	MWF 2:00pm - 2:50pm	PHY 1412	
	WF 11:00am - 11:50am	MTH 0105	Discussion
0142	Todd Rowland	Seats (Total: 25)	
	MWF 2:00pm - 2:50pm	PHY 1412	
	W 11:00am - 11:50am	AJC 2121	Discussion
	F 11:00am - 11:50am	MTH 0305	Discussion
0211	Tamas Darvas	Seats (Total: 25)	
	TuTh 11:00am - 12:15pm	ESJ 0224	
	MW 8:00am - 8:50am	MTH 0405	Discussion

0212	Tamas Darvas TuTh 11:00am - 12:15pm MW 8:00am - 8:50am	Seats (Total: 25) ESJ 0224 MTH 0403	Discussion
0221	Tamas Darvas TuTh 11:00am - 12:15pm MW 9:00am - 9:50am	Seats (Total: 25) ESJ 0224 MTH 0405	Discussion
0222	Tamas Darvas TuTh 11:00am - 12:15pm MW 9:00am - 9:50am	Seats (Total: 25) ESJ 0224 MTH 0403	Discussion
0231	Tamas Darvas TuTh 11:00am - 12:15pm MW 11:00am - 11:50am	Seats (Total: 25) ESJ 0224 MTH 0405	Discussion
0232	Tamas Darvas TuTh 11:00am - 12:15pm MW 11:00am - 11:50am	Seats (Total: 25) ESJ 0224 MTH 0403	Discussion
0241	Tamas Darvas TuTh 11:00am - 12:15pm MW 12:00pm - 12:50pm	Seats (Total: 26) ESJ 0224 MTH 0405	Discussion
0242	Tamas Darvas TuTh 11:00am - 12:15pm MW 12:00pm - 12:50pm	Seats (Total: 26) ESJ 0224 MTH 0403	Discussion

MATH136 **Calculus for Life Sciences**

Prerequisite: Minimum grade of C- in MATH135. Restriction: Must be in the Biological Sciences or Neuroscience major; Must not have completed MATH140 with a grade of C- or higher.

Continuation of MATH135, including basic ideas of differential and integral calculus, with emphasis on elementary techniques and applications to the life sciences.

0111	Jose Rigoberto Enrique Zelada Cifuentes TuTh 12:30pm - 1:45pm MW 9:00am - 9:50am	Seats (Total: 25) ARM 0135 MTH 0101	Discussion
0121	Jose Rigoberto Enrique Zelada Cifuentes TuTh 12:30pm - 1:45pm MW 10:00am - 10:50am	Seats (Total: 25) ARM 0135 MTH 0101	Discussion

0131	Jose Rigoberto Enrique Zelada Cifuentes TuTh 12:30pm - 1:45pm MW 1:00pm - 1:50pm	Seats (Total: 25) ARM 0135 MTH 0302	Discussion
0141	Jose Rigoberto Enrique Zelada Cifuentes TuTh 12:30pm - 1:45pm MW 2:00pm - 2:50pm	Seats (Total: 25) ARM 0135 MTH 0302	Discussion

MATH140 **Calculus I**

Prerequisite: Minimum grade of C- in MATH115.

Introduction to calculus, including functions, limits, continuity, derivatives and applications of the derivative, sketching of graphs of functions, definite and indefinite integrals, and calculation of area. The course is especially recommended for science, engineering and mathematics majors.

Graphing calculators, or computers, etc., with software appropriate for graphing non-trivial functions and doing non-trivial calculations, will be needed.

0111	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 8:00am - 9:20am	Seats (Total: 27) ARM 0126 MTH 1308	Discussion
0112	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 8:00am - 9:20am	Seats (Total: 27) ARM 0126 MTH 1311	Discussion
0113	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 8:00am - 9:20am	Seats (Total: 27) ARM 0126 MTH 1313	Discussion
0121	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 9:30am - 10:50am	Seats (Total: 27) ARM 0126 MTH 1308	Discussion
0122	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 9:30am - 10:50am	Seats (Total: 27) ARM 0126 PHY 2124	Discussion
0123	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 9:30am - 10:50am	Seats (Total: 27) ARM 0126 MTH 1313	Discussion

0131	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 11:00am - 12:20pm	Seats (Total: 26) ARM 0126 MTH 1308	Discussion
0132	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 11:00am - 12:20pm	Seats (Total: 26) ARM 0126 MTH 1311	Discussion
0211	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 26) ESJ 0224 ESJ 0215	Discussion
0212	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 26) ESJ 0224 ESJ 0215	Discussion
0213	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 26) ESJ 0224 ESJ 0215	Discussion
0221	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 12:30pm - 1:45pm	Seats (Total: 26) ESJ 0224 ESJ 0215	Discussion
0222	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 12:30pm - 1:45pm	Seats (Total: 26) ESJ 0224 ESJ 0215	Discussion
0223	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 12:30pm - 1:45pm	Seats (Total: 26) ESJ 0224 ESJ 0215	Discussion
0231	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 2:00pm - 3:15pm	Seats (Total: 26) ESJ 0224 HJP 2242	Discussion
0232	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 2:00pm - 3:15pm	Seats (Total: 26) ESJ 0224 HJP 2242	Discussion

0311	Kendall Williams MWF 12:00pm - 12:50pm TuTh 11:00am - 12:20pm	Seats (Total: 27) ARM 0131 MTH 0409	Discussion
0312	Kendall Williams MWF 12:00pm - 12:50pm TuTh 11:00am - 12:20pm	Seats (Total: 27) ARM 0131 MTH 0305	Discussion
0313	Kendall Williams MWF 12:00pm - 12:50pm TuTh 11:00am - 12:20pm	Seats (Total: 27) ARM 0131 MTH 0407	Discussion
0321	Kendall Williams MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 27) ARM 0131 MTH 0409	Discussion
0322	Kendall Williams MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 27) ARM 0131 MTH 0305	Discussion
0323	Kendall Williams MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 27) ARM 0131 MTH 0407	Discussion
0331	Kendall Williams MWF 12:00pm - 12:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 27) ARM 0131 MTH 0409	Discussion
0332	Kendall Williams MWF 12:00pm - 12:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 27) ARM 0131 MTH 0305	Discussion
0411	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 9:30am - 10:50am	Seats (Total: 26) ARM 0135 MTH 0102	Discussion
0412	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 9:30am - 10:45am	Seats (Total: 28) ARM 0135 JMP 1109	Discussion

0413	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 9:30am - 10:50am	Seats (Total: 26) ARM 0135 MTH 0302	Discussion
0421	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 11:00am - 12:20pm	Seats (Total: 28) ARM 0135 MTH B0421	Discussion
0423	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 11:00am - 12:20pm	Seats (Total: 26) ARM 0135 MTH 0302	Discussion
0431	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 28) ARM 0135 MTH B0421	Discussion
0511	Anna Szczekutowicz MWF 2:00pm - 2:50pm TuTh 8:00am - 9:20am	Seats (Total: 26) ARM 0135 MTH 0102	Discussion
0513	Anna Szczekutowicz MWF 2:00pm - 2:50pm TuTh 8:00am - 9:20am	Seats (Total: 28) ARM 0135 MTH 0305	Discussion
0521	Anna Szczekutowicz MWF 2:00pm - 2:50pm TuTh 9:30am - 10:50am	Seats (Total: 28) ARM 0135 MTH 0101	Discussion
0523	Anna Szczekutowicz MWF 2:00pm - 2:50pm TuTh 9:30am - 10:50am	Seats (Total: 28) ARM 0135 MTH 0305	Discussion
0531	Anna Szczekutowicz MWF 2:00pm - 2:50pm TuTh 11:00am - 12:20pm	Seats (Total: 28) ARM 0135 MTH 0101	Discussion
FC01	Steven Chadwick MWTh 3:00pm - 4:15pm F 9:30am - 10:45am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ARM 0135 MTH 0304	Discussion

FC02	Steven Chadwick MWTh 3:00pm - 4:15pm F 11:00am - 12:15pm	Seats (Total: 30) ARM 0135 MTH 0304	Discussion
	Restricted to students in Freshmen Connection.		
FC03	Steven Chadwick MWTh 3:00pm - 4:15pm F 1:00pm - 2:15pm	Seats (Total: 30) ARM 0135 MTH 0304	Discussion
	Restricted to students in Freshmen Connection.		
FC04	Steven Chadwick MWTh 3:00pm - 4:15pm F 2:30pm - 3:45pm	Seats (Total: 30) ARM 0135 MTH 0304	Discussion
	Restricted to students in Freshmen Connection.		
FC05	Steven Chadwick MWTh 3:00pm - 4:15pm F 11:00am - 12:15pm	Seats (Total: 30) ARM 0135 MTH 0307	Discussion
	Restricted to students in Freshmen Connection.		
FC06	Steven Chadwick MWTh 3:00pm - 4:15pm F 9:30am - 10:45am	Seats (Total: 30) ARM 0135 MTH 0307	Discussion
	Restricted to students in Freshmen Connection.		
FC07	Steven Chadwick MWTh 3:00pm - 4:15pm F 11:00am - 12:15pm	Seats (Total: 30) ARM 0135 MTH 0405	Discussion
	Restricted to students in Freshmen Connection.		
FC08	Steven Chadwick MWTh 3:00pm - 4:15pm F 1:00pm - 2:15pm	Seats (Total: 30) ARM 0135 MTH 0307	Discussion
	Restricted to students in Freshmen Connection.		
FC09	Craig Schlenoff MWTh 4:30pm - 5:45pm F 2:30pm - 3:45pm	Seats (Total: 30) PLS 1130 MTH 0306	Discussion
	Restricted to students in Freshmen Connection.		

FC10	Craig Schlenoff MWTh 4:30pm - 5:45pm F 1:00pm - 2:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) PLS 1130 MTH B0429	 Discussion

MATH140H Calculus I

Prerequisite: Minimum grade of C- in MATH115.

Introduction to calculus, including functions, limits, continuity, derivatives and applications of the derivative, sketching of graphs of functions, definite and indefinite integrals, and calculation of area. The course is especially recommended for science, engineering and mathematics majors.

For general honors students only. Offered fall only.

0101	Shiferaw Berhanu MF 10:00am - 10:50am W 10:00am - 11:50am	Seats (Total: 22) MTH 1313 MTH 1313	
0201	Clarke Safsten WF 1:00pm - 1:50pm M 1:00pm - 2:50pm	Seats (Total: 22) MTH 0101 MTH 0101	

MATH141 Calculus II

Prerequisite: Minimum grade of C- in MATH140.

Continuation of MATH140, including techniques of integration, improper integrals, applications of integration (such as volumes, work, arc length, moments), inverse functions, exponential and logarithmic functions, sequences and series.

Graphing calculators, or computers, etc., with software appropriate for graphing non-trivial functions and doing non-trivial calculations, will be needed.

0111	Patrick Brosnan MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 29) ARM 0131 MTH 0306	 Discussion
0112	Patrick Brosnan MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 29) ARM 0131 MTH 0304	 Discussion
0121	Patrick Brosnan MWF 9:00am - 9:50am TuTh 9:00am - 9:50am	Seats (Total: 29) ARM 0131 MTH 0306	 Discussion

0122	Patrick Brosnan MWF 9:00am - 9:50am TuTh 9:00am - 9:50am	Seats (Total: 29) ARM 0131 MTH 0304	Discussion
0131	Patrick Brosnan MWF 9:00am - 9:50am TuTh 10:00am - 10:50am	Seats (Total: 29) ARM 0131 MTH 0306	Discussion
0132	Patrick Brosnan MWF 9:00am - 9:50am TuTh 10:00am - 10:50am	Seats (Total: 29) ARM 0131 MTH 0304	Discussion
0141	Patrick Brosnan MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 29) ARM 0131 MTH 0306	Discussion
0142	Patrick Brosnan MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 29) ARM 0131 MTH 0304	Discussion
0211	James Conway MWF 11:00am - 11:50am TuTh 8:00am - 8:50am	Seats (Total: 30) ARM 0131 MTH B0423	Discussion
0212	James Conway MWF 11:00am - 11:50am TuTh 8:00am - 8:50am	Seats (Total: 29) ARM 0131 MTH B0427	Discussion
0221	James Conway MWF 11:00am - 11:50am TuTh 9:00am - 9:50am	Seats (Total: 29) ARM 0131 MTH B0423	Discussion
0222	James Conway MWF 11:00am - 11:50am TuTh 9:00am - 9:50am	Seats (Total: 30) ARM 0131 MTH B0427	Discussion
0231	James Conway MWF 11:00am - 11:50am TuTh 10:00am - 10:50am	Seats (Total: 30) ARM 0131 MTH B0423	Discussion

0241	James Conway MWF 11:00am - 11:50am TuTh 11:00am - 11:50am	Seats (Total: 30) ARM 0131 MTH B0423	Discussion
0311	Amin Gholampour MWF 12:00pm - 12:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0135 MTH B0425	Discussion
0312	Amin Gholampour MWF 12:00pm - 12:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0135 MTH 0106	Discussion
0321	Amin Gholampour MWF 12:00pm - 12:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 29) ARM 0135 MTH B0425	Discussion
0322	Amin Gholampour MWF 12:00pm - 12:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 29) ARM 0135 MTH 0106	Discussion
0331	Amin Gholampour MWF 12:00pm - 12:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 29) ARM 0135 MTH B0425	Discussion
0341	Amin Gholampour MWF 12:00pm - 12:50pm TuTh 3:00pm - 3:50pm	Seats (Total: 29) ARM 0135 MTH B0425	Discussion
0411	Shalin Parekh MWF 1:00pm - 1:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 29) HJP 0226 MTH 0201	Discussion
0421	Shalin Parekh MWF 1:00pm - 1:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 29) HJP 0226 MTH 0201	Discussion
0431	Shalin Parekh MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 29) HJP 0226 MTH 0101	Discussion

0441	Shalin Parekh MWF 1:00pm - 1:50pm TuTh 3:00pm - 3:50pm	Seats (Total: 29) HJP 0226 MTH 0201	Discussion
FC01	Mirna Pinsky MWTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) MTH 0405	
FC02	Ben Goldschlager MWTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) MTH B0423	
FC03	Jason Schultz MWTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) PHY 2124	

MATH141H **Calculus II**

Prerequisite: Minimum grade of C- in MATH140.

Continuation of MATH140, including techniques of integration, improper integrals, applications of integration (such as volumes, work, arc length, moments), inverse functions, exponential and logarithmic functions, sequences and series.

For Honors College students only. Graphing calculators, or computers, etc., with software appropriate for graphing non-trivial functions and doing non-trivial calculations, will be needed.

0101	Sana Jahedi WF 9:00am - 9:50am M 9:00am - 10:50am	Seats (Total: 20) MTH 0306 MTH 0306	
0201	Sean Gruber MF 10:00am - 10:50am W 10:00am - 11:50am	Seats (Total: 20) MTH 0102 MTH 0102	

MATH206 **Introduction to Matlab**

Prerequisite: 1 course with a minimum grade of C- from (MATH136, MATH140).

This course is intended to prepare students for subsequent courses requiring computation with MATLAB. Covers basics of MATLAB including simple commands, variables, solving equations, graphing differentiation and integration, matrices and vectors, functions, M-files and fundamentals of programming in the MATLAB environment. When offered in Winter and Summer terms, the course is offered in a format suitable for online distance learning.

0101	Terence Long **Meets August 28, 2023 - October 10, 2023** Class time/details on ELMs	Seats (Total: 450) ONLINE

MATH212 **Elements of Numbers and Operations**

Prerequisite: Must have completed one year of college preparatory algebra. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education).

Reviews and extends topics of arithmetic and number theory related to the elementary school curriculum, particularly number systems and operations with natural numbers, integers, and rationals.

0101	Luis Royo Romero MWF 10:00am - 10:50am	Seats (Total: 25) MTH 1308
0401	Matthew Wilson MWF 2:00pm - 2:50pm	Seats (Total: 25) MTH 0102

MATH213 **Elements of Geometry and Measurement**

Prerequisite: MATH212. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education).

Properties of geometric objects in two and three dimensions; parallel lines, curves and polygons; ratio, proportion, similarity; transformational geometry and measurement, constructions, justifications and proofs.

0101	Sean Gruber MWF 9:00am - 9:50am	Seats (Total: 25) MTH B0425
0201	Jeremiah Emidih MWF 10:00am - 10:50am	Seats (Total: 25) MTH B0425

MATH214 **Elements of Probability and Statistics**

Prerequisite: MATH212. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education).

Permutations and combinations; probability; collecting and representing data; using statistics to analyze and interpret data.

0201	Karen McLaren MWF 9:00am - 9:50am	Seats (Total: 25) MTH 1311

MATH240 **Introduction to Linear Algebra**

Prerequisite: 1 course with a minimum grade of C- from (MATH131, MATH141). Credit only granted for: MATH240, MATH341, or MATH461.

Basic concepts of linear algebra: vector spaces, applications to line and plane geometry, linear equations and matrices, similar matrices, linear transformations, eigenvalues, determinants and quadratic forms.

0111	Stefan Doboszczak MWF 9:00am - 9:50am TuTh 12:00pm - 12:50pm	Seats (Total: 30) ARM 0135 MTH B0427	Discussion
0112	Stefan Doboszczak MWF 9:00am - 9:50am TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0135 MTH 0403	Discussion
0121	Stefan Doboszczak MWF 9:00am - 9:50am TuTh 1:00pm - 1:50pm	Seats (Total: 30) ARM 0135 MTH B0427	Discussion
0122	Stefan Doboszczak MWF 9:00am - 9:50am TuTh 1:00pm - 1:50pm	Seats (Total: 30) ARM 0135 MTH 0403	Discussion
0131	Stefan Doboszczak MWF 9:00am - 9:50am TuTh 2:00pm - 2:50pm	Seats (Total: 30) ARM 0135 MTH B0427	Discussion
0132	Stefan Doboszczak MWF 9:00am - 9:50am TuTh 2:00pm - 2:50pm	Seats (Total: 30) ARM 0135 MTH 0407	Discussion
0141	Stefan Doboszczak MWF 9:00am - 9:50am TuTh 3:00pm - 3:50pm	Seats (Total: 29) ARM 0135 MTH B0427	Discussion
0142	Stefan Doboszczak MWF 9:00am - 9:50am TuTh 3:00pm - 3:50pm	Seats (Total: 29) ARM 0135 MTH 0407	Discussion
0211	Hatice Sahinoglu MWF 10:00am - 10:50am TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0131 MTH B0429	Discussion

0212	Hatice Sahinoglu MWF 10:00am - 10:50am TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0131 MTH 0307	Discussion
0221	Hatice Sahinoglu MWF 10:00am - 10:50am TuTh 1:00pm - 1:50pm	Seats (Total: 29) ARM 0131 MTH B0429	Discussion
0222	Hatice Sahinoglu MWF 10:00am - 10:50am TuTh 1:00pm - 1:50pm	Seats (Total: 29) ARM 0131 MTH 0307	Discussion
0231	Hatice Sahinoglu MWF 10:00am - 10:50am TuTh 2:00pm - 2:50pm	Seats (Total: 29) ARM 0131 MTH B0429	Discussion
0232	Hatice Sahinoglu MWF 10:00am - 10:50am TuTh 2:00pm - 2:50pm	Seats (Total: 29) ARM 0131 MTH 0307	Discussion
0241	Hatice Sahinoglu MWF 10:00am - 10:50am TuTh 3:00pm - 3:50pm	Seats (Total: 29) ARM 0131 MTH B0429	Discussion
0242	Hatice Sahinoglu MWF 10:00am - 10:50am TuTh 3:00pm - 3:50pm	Seats (Total: 29) ARM 0131 MTH 0307	Discussion
0311	Wiseley Wong MWF 11:00am - 11:50am TuTh 11:00am - 11:50am	Seats (Total: 29) ARM 0135 MTH 0303	Discussion
0312	Wiseley Wong MWF 11:00am - 11:50am TuTh 11:00am - 11:50am	Seats (Total: 30) ARM 0135 MTH 1313	Discussion
0321	Wiseley Wong MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 30) ARM 0135 MTH 0303	Discussion

0322	Wiseley Wong MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0135 MTH 1313	Discussion
0331	Wiseley Wong MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 30) ARM 0135 MTH 0303	Discussion
0332	Wiseley Wong MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 29) ARM 0135 MTH 1313	Discussion
0341	Wiseley Wong MWF 11:00am - 11:50am TuTh 2:00pm - 2:50pm	Seats (Total: 29) ARM 0135 MTH 0201	Discussion
0342	Wiseley Wong MWF 11:00am - 11:50am TuTh 2:00pm - 2:50pm	Seats (Total: 29) ARM 0135 MTH 0405	Discussion
0411	James Conway MWF 1:00pm - 1:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 29) ESJ 0224 MTH 0405	Discussion
0412	James Conway MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 30) ESJ 0224 MTH B0423	Discussion
0413	James Conway MWF 1:00pm - 1:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 29) ESJ 0224 BPS 1236	Discussion
0414	James Conway MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 29) ESJ 0224 BPS 1238	Discussion
0415	James Conway MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 27) ESJ 0224 MTH 0102	Discussion

0416	James Conway MWF 1:00pm - 1:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 27) ESJ 0224 MTH 0102	Discussion

MATH241 **Calculus III**

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH241 or MATH340.

Introduction to multivariable calculus, including vectors and vector-valued functions, partial derivatives and applications of partial derivatives (such as tangent planes and Lagrange multipliers), multiple integrals, volume, surface area, and the classical theorems of Green, Stokes and Gauss.

All sections will use MATLAB.

0111	Fushuai Jiang MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0126 MTH 0405	Discussion
0112	Fushuai Jiang MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0126 MTH B0429	Discussion
0121	Fushuai Jiang MWF 9:00am - 9:50am TuTh 9:00am - 9:50am	Seats (Total: 28) ARM 0126 MTH 0405	Discussion
0122	Fushuai Jiang MWF 9:00am - 9:50am TuTh 9:00am - 9:50am	Seats (Total: 28) ARM 0126 MTH B0429	Discussion
0131	Fushuai Jiang MWF 9:00am - 9:50am TuTh 10:00am - 10:50am	Seats (Total: 28) ARM 0126 MTH 0405	Discussion
0132	Fushuai Jiang MWF 9:00am - 9:50am TuTh 10:00am - 10:50am	Seats (Total: 28) ARM 0126 MTH B0429	Discussion
0141	Fushuai Jiang MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH 0405	Discussion

0142	Fushuai Jiang MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH B0429	Discussion
0211	Antoine Mellet MWF 10:00am - 10:50am TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0135 MTH 0307	Discussion
0212	Antoine Mellet MWF 10:00am - 10:50am TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0135 MTH 0303	Discussion
0221	Antoine Mellet MWF 10:00am - 10:50am TuTh 9:00am - 9:50am	Seats (Total: 29) ARM 0135 MTH 0307	Discussion
0222	Antoine Mellet MWF 10:00am - 10:50am TuTh 9:00am - 9:50am	Seats (Total: 28) ARM 0135 MTH 0303	Discussion
0231	Antoine Mellet MWF 10:00am - 10:50am TuTh 10:00am - 10:50am	Seats (Total: 28) ARM 0135 MTH 0307	Discussion
0232	Antoine Mellet MWF 10:00am - 10:50am TuTh 10:00am - 10:50am	Seats (Total: 28) ARM 0135 MTH 0303	Discussion
0241	Antoine Mellet MWF 10:00am - 10:50am TuTh 12:00pm - 12:50pm	Seats (Total: 28) ARM 0135 MTH 0405	Discussion
0242	Antoine Mellet MWF 10:00am - 10:50am TuTh 12:00pm - 12:50pm	Seats (Total: 28) ARM 0135 MTH 0304	Discussion
0311	Justin Wyss-Gallifent MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 27) PHY 1412 BPS 1234	Discussion

0312	Justin Wyss-Gallifent MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 27) PHY 1412 PHY 0405	Discussion
0321	Justin Wyss-Gallifent MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 27) PHY 1412 BPS 1234	Discussion
0322	Justin Wyss-Gallifent MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 27) PHY 1412 MTH 0102	Discussion
0331	Justin Wyss-Gallifent MWF 11:00am - 11:50am TuTh 2:00pm - 2:50pm	Seats (Total: 27) PHY 1412 ATL 1109	Discussion
0341	Justin Wyss-Gallifent MWF 11:00am - 11:50am TuTh 3:00pm - 3:50pm	Seats (Total: 27) PHY 1412 ATL 1109	Discussion
0411	Fushuai Jiang MWF 12:00pm - 12:50pm TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0126 MTH 0201	Discussion
0412	Fushuai Jiang MWF 12:00pm - 12:50pm TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0126 MTH 0409	Discussion
0421	Fushuai Jiang MWF 12:00pm - 12:50pm TuTh 9:00am - 9:50am	Seats (Total: 28) ARM 0126 MTH 0201	Discussion
0422	Fushuai Jiang MWF 12:00pm - 12:50pm TuTh 9:00am - 9:50am	Seats (Total: 28) ARM 0126 MTH 0409	Discussion
0431	Fushuai Jiang MWF 12:00pm - 12:50pm TuTh 10:00am - 10:50am	Seats (Total: 28) ARM 0126 MTH 0201	Discussion

0441	Fushuai Jiang MWF 12:00pm - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 28) ARM 0126 MTH 0201	Discussion
0511	Terence Long MWF 3:00pm - 3:50pm TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0126 MTH 0106	Discussion
0512	Terence Long MWF 3:00pm - 3:50pm TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0126 MTH 0403	Discussion
0521	Terence Long MWF 3:00pm - 3:50pm TuTh 9:00am - 9:50am	Seats (Total: 28) ARM 0126 MTH 0106	Discussion
0522	Terence Long MWF 3:00pm - 3:50pm TuTh 9:00am - 9:50am	Seats (Total: 28) ARM 0126 MTH 0403	Discussion
0531	Terence Long MWF 3:00pm - 3:50pm TuTh 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH 0106	Discussion
0541	Terence Long MWF 3:00pm - 3:50pm TuTh 11:00am - 11:50am	Seats (Total: 28) ARM 0126 MTH 0106	Discussion
FC01	David Pincus MWTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 48) PHY 2106	

MATH241H Calculus III

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH241 or MATH340.

Introduction to multivariable calculus, including vectors and vector-valued functions, partial derivatives and applications of partial derivatives (such as tangent planes and Lagrange multipliers), multiple integrals, volume, surface area, and the classical theorems of Green, Stokes and Gauss.

For general honors students only. MATH241H will use MATLAB.

0101	Allan Yashinski MF 10:00am - 10:50am W 10:00am - 11:50am	Seats (Total: 24) MTH 0106 MTH 0106	
0201	Jaime Paradela Diaz MF 11:00am - 11:50am W 11:00am - 12:50pm	Seats (Total: 24) MTH 0103 MTH 0103	
0301	Matthew Welsh MF 1:00pm - 1:50pm W 1:00pm - 2:50pm	Seats (Total: 24) MTH 0201 MTH 0201	

MATH246 **Differential Equations for Scientists and Engineers**

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH246 or MATH341.

An introduction to the basic methods of solving ordinary differential equations. Equations of first and second order, linear differential equations, Laplace transforms, numerical methods and the qualitative theory of differential equations.

All sections will use MATLAB.

0111	Kendall Williams MWF 1:00pm - 1:50pm Tu 8:00am - 8:50am	Seats (Total: 25) ARM 0131 MTH 0401	Discussion
0112	Kendall Williams MWF 1:00pm - 1:50pm Tu 8:00am - 8:50am	Seats (Total: 25) ARM 0131 MTH 0411	Discussion
0121	Kendall Williams MWF 1:00pm - 1:50pm Tu 9:00am - 9:50am	Seats (Total: 25) ARM 0131 MTH 0401	Discussion
0122	Kendall Williams MWF 1:00pm - 1:50pm Tu 9:00am - 9:50am	Seats (Total: 25) ARM 0131 MTH 0411	Discussion
0131	Kendall Williams MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 25) ARM 0131 MTH 0401	Discussion

0132	Kendall Williams MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 25) ARM 0131 MTH 0411	Discussion
0141	Kendall Williams MWF 1:00pm - 1:50pm Tu 12:00pm - 12:50pm	Seats (Total: 25) ARM 0131 MTH 0401	Discussion
0142	Kendall Williams MWF 1:00pm - 1:50pm Tu 12:00pm - 12:50pm	Seats (Total: 25) ARM 0131 MTH 0411	Discussion
0211	David Hamilton MWF 3:00pm - 3:50pm	Seats (Total: 26) PHY 2213	
0311	Francisco Arana Herrera TuTh 12:30pm - 1:45pm M 9:00am - 9:50am	Seats (Total: 27) ARM 0131 MTH 0201	Discussion
0321	Francisco Arana Herrera TuTh 12:30pm - 1:45pm M 10:00am - 10:50am	Seats (Total: 27) ARM 0131 MTH 0201	Discussion
0331	Francisco Arana Herrera TuTh 12:30pm - 1:45pm M 11:00am - 11:50am	Seats (Total: 27) ARM 0131 MTH 0201	Discussion
0341	Francisco Arana Herrera TuTh 12:30pm - 1:45pm M 12:00pm - 12:50pm	Seats (Total: 28) ARM 0131 MTH 0201	Discussion
0411	Manoussos Grillakis TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 27) ARM 0131 MTH 0201	Discussion
0421	Manoussos Grillakis TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 28) ARM 0131 MTH 0201	Discussion

0431	Manoussos Grillakis TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 27) ARM 0131 MTH 0201	Discussion
0441	Manoussos Grillakis TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 27) ARM 0131 MTH 0201	Discussion
0501	Alice Wang TuTh 9:30am - 10:45am	Seats (Total: 32) CSI 3120	

MATH246H **Differential Equations for Scientists and Engineers**

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH246 or MATH341.

An introduction to the basic methods of solving ordinary differential equations. Equations of first and second order, linear differential equations, Laplace transforms, numerical methods and the qualitative theory of differential equations.

For general honors students only. MATH241H will use MATLAB.

0101	James Hanson MWF 11:00am - 11:50am	Seats (Total: 20) MTH 0101	

MATH274 **History of Mathematics**

Prerequisite: MATH120, MATH130, MATH136, or MATH140; or must have completed MATH220.

An overview of aspects in the history of mathematics from its beginning in the concrete problem solving of ancient times through the development of abstraction in the 19th and 20th centuries. The course considers both mathematical ideas and the context in which they developed in various civilizations around the world.

0101	Kendall Williams MWF 10:00am - 10:50am	Seats (Total: 20) MTH 0401	

MATH299A **Selected Topics in Mathematics; Special Topics in Study Abroad II: Introduction to Mathematical Computing**

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

Contact department for information to register for this course.

MATH299B **Selected Topics in Mathematics; Putnam Express**

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

0101	Roohollah Ebrahimian W 4:00pm - 5:30pm	Seats (Total: 25) MTH B0421

MATH299C **Selected Topics in Mathematics; Mathematics and Music**

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

0101	Niranjan Ramachandran M 2:00pm - 2:50pm	Seats (Total: 20) MTH 0105

MATH299G **Selected Topics in Mathematics; Introduction to Combinatorial Game Theory**

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

0101	Wiseley Wong, Grayson Wolf, May Piatt F 2:00pm - 2:50pm	Seats (Total: 27) HBK 1112

MATH310 **Introduction to Mathematical Proof**

Prerequisite: Minimum grade of C- in MATH141; and must have completed or be concurrently enrolled in MATH240, MATH341, or MATH461; and must have completed or be concurrently enrolled in MATH241 or MATH340. Restriction: Must be in a major within the CMNS-Mathematics department; or permission of the CMNS-Mathematics department. Additional information: Math majors may not use this course to satisfy an upper-level requirement.

To develop the students' ability to construct a rigorous proof of a mathematical claim. Students will also be made aware of mathematical results that are of interest to those wishing to analyze a particular mathematical model. Topics will be drawn from logic, set theory, structure of the number line, elementary topology, metric spaces, functions, sequences and continuity.

0101	Kathryn Truman MWF 10:00am - 10:50am	Seats (Total: 30) PHY 2106
0201	Steve Halperin MWF 11:00am - 11:50am	Seats (Total: 30) PHY 2106
0401	Jose Rigoberto Enrique Zelada Cifuentes TuTh 11:00am - 12:15pm	Seats (Total: 27) PHY 2124

MATH314 **Introduction to Probability, Data, Analysis and Statistics for Preservice Middle School Teachers**

Prerequisite: MATH214. Restriction: Must be in one of the following programs (Elementary Education; Special Education; Middle School Education). Credit only granted for: MATH314 or STAT100.

Analysis of bivariate data, probability and randomness, law of large numbers, central limit theorem, probabilities for independent and dependent events, counting techniques, random variables and probability distributions, expected values, sampling distributions, and confidence intervals.

0101	Michael Krell TuTh 2:00pm - 3:15pm	Seats (Total: 20) JMZ 1224

MATH315 **Algebra for Preservice Middle School Teachers**

Prerequisite: MATH212. Restriction: Must be in one of the following programs (Elementary Education; Special Education; Middle School Education). Credit only granted for: MATH113 or MATH315.

Algebraic concepts and techniques developed in the middle grades, with their larger mathematical context. Equations, inequalities and functions (linear, polynomial, exponential, logarithmic), with multiple representations of relationships. Common misconceptions of beginning algebra students.

0101	Carolina Napp-Avelli MW 2:00pm - 3:15pm	Seats (Total: 20) HJP 2217

MATH340 **Multivariable Calculus, Linear Algebra and Differential Equations I (Honors)**

(Perm req)

Prerequisite: MATH141 and MATH140; and permission of CMNS-Mathematics department; and permission will be granted only to incoming freshmen. Credit only granted for: MATH241 or MATH340.

First semester of the MATH340-341 sequence which gives a unified and enriched treatment of multivariable calculus, linear algebra and ordinary differential equations, with supplementary material from subjects such as differential geometry, Fourier series and calculus of variations. Students completing MATH340-341 will have covered the material of MATH240, MATH241, and MATH246, and may not also receive credit for MATH240, MATH241 or MATH246.

0101	Niranjan Ramachandran MWF 10:00am - 11:15am	Seats (Total: 37) CCC 1200
0201	Roohollah Ebrahimian MWF 12:00pm - 1:15pm	Seats (Total: 37) HBK 0103

MATH386 **Experiential Learning**

(Perm req)

Prerequisite: Must have learning proposal approved by the CMNS Mathematics Department.

Contact department for information to register for this course.

MATH401 **Applications of Linear Algebra**

Prerequisite: 1 course with a minimum grade of C- from (MATH461, MATH240, MATH341).

Various applications of linear algebra: theory of finite games, linear programming, matrix methods as applied to finite Markov chains, random walk, incidence matrices, graphs and directed graphs, networks and transportation problems.

0101	Rodrigo Trevino MWF 10:00am - 10:50am	Seats (Total: 33) BPS 1238
0201	Raluca Rosca MWF 11:00am - 11:50am	Seats (Total: 35) PHY 2124
0301	Lutian Zhao MWF 12:00pm - 12:50pm	Seats (Total: 35) PHY 2124
0401	Giovanni Forni TuTh 9:30am - 10:45am	Seats (Total: 25) MTH 1311
0501	Adam Kanigowski TuTh 12:30pm - 1:45pm	Seats (Total: 35) PHY 2213
0601	Yanir Rubinstein TuTh 2:00pm - 3:15pm	Seats (Total: 25) PHY 2213

MATH402 **Algebraic Structures**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Restriction: Must not be in any of the following programs (Mathematics (Master's); Mathematics (Doctoral)). Credit only granted for: MATH402 or MATH403.

For students having only limited experience with rigorous mathematical proofs. Parallels MATH403. Students planning graduate work in mathematics should take MATH403. Groups, rings, integral domains and fields, detailed study of several groups; properties of integers and polynomials. Emphasis is on the origin of the mathematical ideas studied and the logical structure of the subject.

0101	Steven Chadwick MWF 12:00pm - 12:50pm	Seats (Total: 25) MTH 0305

MATH403 **Introduction to Abstract Algebra**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH340); and 1 course with a minimum grade of C- from (MATH341, MATH241); and minimum grade of C- in MATH310. Or students who have taken courses with comparable content may contact the department. Credit only granted for: MATH402 or MATH403.

Integers; groups, rings, integral domains, fields.

0101	Amin Gholampour MWF 11:00am - 11:50am	Seats (Total: 33) PHY 2208
0201	Christian Zickert TuTh 11:00am - 12:15pm	Seats (Total: 33) PHY 2208

MATH405 **Linear Algebra**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and minimum grade of C- in MATH310.

An abstract treatment of finite dimensional vector spaces. Linear transformations and their invariants.

0101	Roohollah Ebrahimian MWF 3:00pm - 3:50pm	Seats (Total: 35) PHY 2124
0201	Adam Kanigowski TuTh 11:00am - 12:15pm	Seats (Total: 35) PHY 2213

MATH406 **Introduction to Number Theory**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH241, MATH246, MATH340, MATH341, MATH461); or permission of CMNS-Mathematics department.

Integers, divisibility, prime numbers, unique factorization, congruences, quadratic reciprocity, Diophantine equations and arithmetic functions.

0101	Allan Yashinski MWF 12:00pm - 12:50pm	Seats (Total: 35) PHY 2106
0201	Harry Tamvakis TuTh 9:30am - 10:45am	Seats (Total: 25) PHY 2213
0301	William Goldman TuTh 12:30pm - 1:45pm	Seats (Total: 35) CSI 3120

MATH410 **Advanced Calculus I**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241); and minimum grade of C- in MATH310.

Subjects covered: sequences and series of numbers, continuity and differentiability of real-valued functions of one variable, the Riemann integral, sequences of functions and power series.

0101	Haizhao Yang TuTh 2:00pm - 3:15pm	Seats (Total: 32) PHY 2211
0201	Christian Rosendal MWF 10:00am - 10:50am	Seats (Total: 25) PHY 2124
0301	Anna Szczekutowicz MWF 11:00am - 11:50am	Seats (Total: 36) PHY 2211
0401	David Hamilton MWF 1:00pm - 1:50pm	Seats (Total: 30) PHY 2106
0501	Hussain Ibdah MWF 2:00pm - 2:50pm	Seats (Total: 25) PHY 2106
0601	Manoussos Grillakis TuTh 11:00am - 12:15pm	Seats (Total: 32) CHE 2118

MATH411 **Advanced Calculus II**

(Perm req)

Prerequisite: Minimum grade of C- in MATH410; and permission of CMNS-Mathematics department.

Continuation of MATH410. Topics include: The topology of sets in Rn, the derivative matrix, the general chain rule, inverse and implicit function theorems with applications, smooth curves and surfaces in R3, Lagrange multipliers. Additional topics may include: Metric spaces, the contraction principle, the existence and uniqueness theorem for nonlinear first order differential equations, the Riemann integral of Rn, introduction to integration on curves and surfaces, Green's theorem.

0101	Matei Machedon MWF 11:00am - 11:50am	Seats (Total: 31) PHY 2213
0201	Kendall Williams MWF 9:00am - 9:50am	Seats (Total: 25) MTH 0401

MATH416 **Applied Harmonic Analysis: An Introduction to Signal Processing**

Prerequisite: Minimum grade of C- in MATH141; and 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and familiarity with MATLAB is required.

Introduces students to the mathematical concepts arising in signal analysis from the applied harmonic analysis point of view. Topics include applied linear algebra, Fourier series, discrete Fourier transform, Fourier transform, Shannon Sampling Theorem, wavelet bases, multiresolution analysis, and discrete wavelet transform.

0101	Wojciech Czaja	Seats (Total: 28)
	MWF 12:00pm - 12:50pm	PHY 2208

MATH424 **Introduction to the Mathematics of Finance**

(Perm req)

Prerequisite: Minimum grade of C- in MATH141; and 1 course with a minimum grade of C- from (STAT400, STAT410); and permission of CMNS-Mathematics department. Recommended: MATH246, MATH240, MATH241, MATH340, or MATH341. Credit only granted for: BMGT444, MATH424.

Introduction to the mathematical models used in finance and economics with emphasis on pricing derivative instruments. Designed for students in mathematics, computer science, engineering, finance and physics. Financial markets and instruments; elements from basic probability theory; interest rates and present value analysis; normal distribution of stock returns; option pricing; arbitrage pricing theory; the multiperiod binomial model; the Black-Scholes option pricing formula; proof of the Black-Scholes option pricing formula and applications; trading and hedging of options; Delta hedging; utility functions and portfolio theory; elementary stochastic calculus; Ito's Lemma; the Black-Scholes equation and its conversion to the heat equation.

0101	Dionisios Margetis	Seats (Total: 32)
	TuTh 9:30am - 10:45am	PLS 1119

MATH430 **Euclidean and Non-Euclidean Geometries**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461).

Hilbert's axioms for Euclidean geometry. Neutral geometry: the consistency of the hyperbolic parallel postulate and the inconsistency of the elliptic parallel postulate with neutral geometry. Models of hyperbolic geometry. Existence and properties of isometries.

0101	James Conway	Seats (Total: 28)
	MWF 10:00am - 10:50am	PHY 2208

MATH431 **Geometry for Computer Applications**

Prerequisite: 1 course with a minimum grade of C- from (MATH461, MATH240, MATH341).

Topics from projective geometry and transformation geometry, emphasizing the two-dimensional representation of three-dimensional objects and objects moving about in the plane and space. The emphasis will be on formulas and algorithms of immediate use in computer graphics.

0101	William Goldman	Seats (Total: 30)
	TuTh 9:30am - 10:45am	HBK 0109

MATH432 **Introduction to Topology**

Prerequisite: Minimum grade of C- in MATH410.

Metric spaces, topological spaces, connectedness, compactness (including Heine-Borel and Bolzano-Weierstrass theorems), Cantor sets, continuous maps and homeomorphisms, fundamental group (homotopy, covering spaces, the fundamental theorem of algebra, Brouwer fixed point theorem), surfaces (e.g., Euler characteristic, the index of a vector field, hairy sphere theorem), elements of combinatorial topology (graphs and trees, planarity, coloring problems).

0101	Boyu Zhang	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	EGR 1110

MATH436 **Differential Geometry of Curves and Surfaces I**

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH461, MATH240, MATH341); and must have completed two 400-level MATH courses with a minimum grade of C- (not including MATH461, and 480's).

Curves in the plane and Euclidean space, moving frames, surfaces in Euclidean space, orientability of surfaces; Gaussian and mean curvatures; surfaces of revolution, ruled surfaces, minimal surfaces, special curves on surfaces, "Theorema Egregium"; the intrinsic geometry of surfaces.

0101	Yaxiong Liu	Seats (Total: 27)
	TuTh 2:00pm - 3:15pm	EGR 3106

MATH445 **Elementary Mathematical Logic**

Prerequisite: Minimum grade of C- in MATH141.

Elementary development of propositional and predicate logic, including semantics and deductive systems and with a discussion of completeness, incompleteness and the decision problem.

0101	James Hanson	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	MTH 0104

MATH452 **Introduction to Dynamics and Chaos**

Prerequisite: MATH341; or MATH246 and one of (MATH240 or MATH461). Cross-listed with: AMSC452. Credit only granted for: AMSC452 or MATH452.

An introduction to mathematical dynamics and chaos. Orbits, bifurcations, Cantor sets and horseshoes, symbolic dynamics, fractal dimension, notions of stability, flows and chaos. Includes motivation and historical perspectives, as well as examples of fundamental maps studied in dynamics and applications of dynamics.

0101	Todd Rowland	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	PHY 2211

MATH456 **Cryptography**

(Perm req)

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses); and Permission of CMNS-Mathematics department or permission of instructor. Cross-listed with: CMSC456, ENEE456. Credit only granted for: MATH456, CMSC456 or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Jonathan Rosenberg MWF 10:00am - 10:50am	Seats (Total: 70) CSI 3117	
0201	Daniel Gottesman TuTh 12:30pm - 1:45pm	Seats (Total: 95) IRB 1116	

MATH461 **Linear Algebra for Scientists and Engineers**

Prerequisite: Minimum grade of C- in MATH141; and must have completed a MATH or STAT course with a prerequisite of MATH141. Credit only granted for: MATH240, MATH341, or MATH461. Additional information: This course may not be used towards the upper level math requirements for MATH/STAT majors.

Basic concepts of linear algebra. This course is similar to MATH240, but with more extensive coverage of the topics needed in applied linear algebra: change of basis, complex eigenvalues, diagonalization, the Jordan canonical form.

0111	Allan Yashinski MWF 2:00pm - 2:50pm Tu 1:00pm - 1:50pm	Seats (Total: 29) ARM 0131 MTH 0302	 Discussion
0112	Allan Yashinski MWF 2:00pm - 2:50pm Tu 1:00pm - 1:50pm	Seats (Total: 28) ARM 0131 MTH 0401	 Discussion
0113	Allan Yashinski MWF 2:00pm - 2:50pm Tu 1:00pm - 1:50pm	Seats (Total: 28) ARM 0131 MTH 0411	 Discussion
0121	Allan Yashinski MWF 2:00pm - 2:50pm Tu 2:00pm - 2:50pm	Seats (Total: 28) ARM 0131 MTH 0302	 Discussion

0122	Allan Yashinski MWF 2:00pm - 2:50pm Tu 2:00pm - 2:50pm	Seats (Total: 28) ARM 0131 MTH 0401	Discussion
0123	Allan Yashinski MWF 2:00pm - 2:50pm Tu 2:00pm - 2:50pm	Seats (Total: 28) ARM 0131 MTH 0411	Discussion
0131	Allan Yashinski MWF 2:00pm - 2:50pm Tu 3:00pm - 3:50pm	Seats (Total: 28) ARM 0131 MTH 0302	Discussion
0132	Allan Yashinski MWF 2:00pm - 2:50pm Tu 3:00pm - 3:50pm	Seats (Total: 28) ARM 0131 MTH 0401	Discussion
0133	Allan Yashinski MWF 2:00pm - 2:50pm Tu 3:00pm - 3:50pm	Seats (Total: 28) ARM 0131 MTH 0411	Discussion

MATH462 **Partial Differential Equations**

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH246, MATH341).

Linear spaces and operators, orthogonality, Sturm-Liouville problems and eigenfunction expansions for ordinary differential equations. Introduction to partial differential equations, including the heat equation, wave equation and Laplace's equation. Boundary value problems, initial value problems and initial-boundary value problems.

0101	Stefan Doboszczak MWF 2:00pm - 2:50pm	Seats (Total: 33) PHY 2124

MATH463 **Complex Variables**

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340).

The algebra of complex numbers, analytic functions, mapping properties of the elementary functions. Cauchy integral formula. Theory of residues and application to evaluation of integrals. Conformal mapping.

0101	Shiferaw Berhanu MWF 12:00pm - 12:50pm	Seats (Total: 28) MTH 1313

0201	Richard Wentworth	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	MTH 0101

MATH475 **Combinatorics and Graph Theory**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and permission of CMNS-Mathematics department. Cross-listed with CMSC475. Credit only granted for: MATH475 or CMSC475.

General enumeration methods, difference equations, generating functions. Elements of graph theory, matrix representations of graphs, applications of graph theory to transport networks, matching theory and graphical algorithms.

0101	Wiseley Wong	Seats (Total: 35)
	MWF 2:00pm - 2:50pm	PHY 2211

MATH489 **Research Interactions in Mathematics; Research Interactions in Mathematics**

(Perm req)

Students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) mathematics research group. Format varies. Students and supervising faculty will agree to a contract which must be approved by the department. Up to three credits of MATH489 may be applied to the mathematics degree requirements. See the department's MATH489 online syllabus for further information.

Contact department for information to register for this course.

MATH489D **Research Interactions in Mathematics; Dynamics RIT**

Students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) mathematics research group. Format varies. Students and supervising faculty will agree to a contract which must be approved by the department. Up to three credits of MATH489 may be applied to the mathematics degree requirements. See the department's MATH489 online syllabus for further information.

Cross-listed with MATH689D. Credit only granted for MATH489D or MATH689D.

0101	Adam Kanigowski, Jonathan DeWitt	Seats (Total: 15)
	Tu 3:00pm - 4:50pm	EGR 3114

MATH498A **Selected Topics in Mathematics**

(Perm req)

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the departmental committee on undergraduate studies.

Contact department for information to register for this course.

MATH600 **Abstract Algebra I**

Prerequisite: MATH405 and MATH403; or students who have taken courses with comparable content may contact the department.

Groups with operators, homomorphism and isomorphism theorems, normal series, Sylow theorems, free groups, Abelian groups, rings, integral domains, fields, modules. Topics may include HOM (A,B), Tensor products, exterior algebra.

Offered fall only.

0101	Patrick Brosnan	Seats (Total: 20)
	MWF 10:00am - 10:50am	PHY 2213

MATH602 **Homological Algebra**

Prerequisite: MATH600.

Projective and injective modules, homological dimensions, derived functors, spectral sequence of a composite functor. Applications.

0101	Lutian Zhao	Seats (Total: 20)
	MWF 10:00am - 10:50am	MTH B0421

MATH606 **Algebraic Geometry I**

Prerequisite: MATH600 and MATH601.

Prime and primary ideals in Noetherian rings, Hilbert Nullstellensatz, places and valuations, prevarieties (in the sense of Serre), dimension, morphisms, singularities, varieties, schemes, rationality.

0101	Niranjan Ramachandran	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	MTH 0106

MATH621 **Algebraic Number Theory II**

Prerequisite: MATH600. And MATH620; or students who have taken courses with comparable content may contact the department.

Valuation of a field, algebraic function fields, completion of a valuation field, ramification exponent and residue class degree, ramification theory, elements, differents, discriminants, product formula and characterization of fields by the formula, Gauss sum, class number formula of cyclotomic fields.

0101	Lawrence Washington	Seats (Total: 20)
	MWF 11:00am - 11:50am	PHY 1219

MATH630 **Real Analysis I**

Prerequisite: MATH411; or students who have taken courses with comparable content may contact the department.

Lebesgue measure and the Lebesgue integral on R, differentiation of functions of bounded variation, absolute continuity and fundamental theorem of calculus, Lp spaces on R, Riesz-Fischer theorem, bounded linear functionals on Lp, measure and outer measure, Fubini's theorem.

0101	Matei Machedon	Seats (Total: 23)
	MWF 1:00pm - 1:50pm	MTH B0421

MATH634 **Harmonic Analysis**

Prerequisite: MATH630.

L1 theory: Fejer theorem, inversion theorem, ideal structure, Tauberian theorem. L2 theory: Plancherel-Parseval theorems, Paley-Wiener theorem. Lp theory: Hausdorff-Young theorem. Distribution theory: Bochner's theorem, Wiener continuous measures theorem, Malliavin theorem, Schwartz theory, almost periodic functions.

0101	Radu Balan	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	EGR 1102

MATH642 **Dynamical Systems I**

Prerequisite: MATH432. And MATH630; or students who have taken courses with comparable content may contact the department.

Foundations of topological dynamics, homeomorphisms, flows, periodic and recurrent points, transitivity and minimality, symbolic dynamics. Elements of ergodic theory, invariant measures and sets, ergodicity, ergodic theorems, mixing, spectral theory, flows and sections. Applications of dynamical systems to number theory, the Weyl theorem, the distribution of values of polynomials, Vander Waerden's theorem on arithmetic progressions.

0101	Michael Jakobson	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	CHE 2140

MATH669 **Selected Topics in Riemann Surfaces**

Construction of Riemann surfaces, hyperbolic geometry, Fuchsian and Kleinian groups, potential theory, uniformisation spaces of meromorphic functions, line bundles, Picard variety, Riemann-Roch, Teichmueller theory.

0101	Giovanni Forni	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	EGR 3102

MATH673 **Partial Differential Equations I**

Prerequisite: MATH411; or students who have taken courses with comparable content may contact the department. Cross-listed with: AMSC673. Credit only granted for: AMSC673 or MATH673.

Analysis of boundary value problems for Laplace's equation, initial value problems for the heat and wave equations. Fundamental solutions, maximum principles, energy methods. First order nonlinear PDE, conservation laws. Characteristics, shock formation, weak solutions. Distributions, Fourier transform.

Offered fall only.

0101	Huy Nguyen	Seats (Total: 20)
	MWF 2:00pm - 2:50pm	CHM 2201

MATH689 **Research Interactions in Mathematics**

(Perm req)

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

MATH689D **Research Interactions in Mathematics; Dynamics RIT**

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Cross-listed with MATH489D. Credit only granted for MATH489D or MATH689D.

0101	Jonathan DeWitt, Adam Kanigowski	Seats (Total: 15)
	Tu 3:00pm - 4:50pm	EGR 3114

MATH695 **Teaching Seminar**

Restriction: Must be in one of the following programs (Mathematics (Doctoral); Mathematics (Master's); Mathematical Statistics (Doctoral); Applied Mathematics and Scientific Computation (Master's); Mathematical Statistics (Master's); Applied Mathematics and Scientific Computation (Doctoral)).

A course intended for first year teaching assistants. Topics include: everyday mechanics of teaching; teaching methods and styles; technology; course enrichment, diversity in the classroom; sexual harassment; teacher-student interactions; presentations by students.

0101	Terence Long	Seats (Total: 35)
	W 4:00pm - 5:30pm	PHY 2213

MATH712 **Mathematical Logic I**

Sentential logic, first-order languages, models and formal deductions. Basic model theory including completeness and compactness theorems, other methods of constructing models, and applications such as non-standard analysis.

0101	Michael Laskowski	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	EGR 3102

MATH730 **Fundamental Concepts of Topology**

Prerequisite: MATH403, MATH410, and MATH411; or students who have taken courses with comparable content may contact the department.

Survey of basic point set topology, fundamental group, covering spaces, Van Kampen's theorem, simplicial complexes, simplicial homology, Euler characteristics and classification of surfaces.

0101	Christian Zickert	Seats (Total: 18)
	TuTh 2:00pm - 3:15pm	CHE 2145

MATH742 **Geometric Analysis**

Prerequisite: MATH673 and MATH674; or MATH740.

Calculus of Variations, Bochner technique, Morse theory, weak solutions and elliptic regularity, maximum principle for elliptic and parabolic equations, Green's function of the Laplacian, isoperimetric and Sobolev inequalities, continuity method, curvature and comparison results, harmonic maps, curvature prescription problems.

0101	Daniel Cristofaro-Gardiner	Seats (Total: 18)
	TuTh 9:30am - 10:45am	EGR 3111

MATH799 **Master's Thesis Research**
Contact department for information to register for this course.

MATH808A **Selected Topics in Algebra**

Advanced topics of current interest.

Contact department for information to register for this course.

MATH808C **Selected Topics in Algebra; Algebraic Combinatorics**

Advanced topics of current interest.

0101	Harry Tamvakis	Seats (Total: 18)
	TuTh 12:30pm - 1:45pm	MTH B0431

MATH808R **Selected Topics in Algebra; Selected Topics in PDE: Reaction-Diffusion Equations**

Advanced topics of current interest.

0101	Henri Berestycki	Seats (Total: 20)
	W 12:00pm - 1:50pm	MTH 3206

MATH818A **Selected Topics in Logic**

Advanced topics of current interest.

Contact department for information to register for this course.

MATH818E **Selected Topics in Logic; Model Theory via unary expansions**

Advanced topics of current interest.

0101	Michael Laskowski	Seats (Total: 20)
	TuTh 9:30am - 10:45am	PHY 4222

MATH848A **Selected Topics in Geometry and Topology**

Advanced topics of current interest.

Contact department for information to register for this course.

MATH848T **Selected Topics in Geometry and Topology; Geometric Group Theory, Homeomorphism Groups and Mapping Class Groups**

Advanced topics of current interest.

0101	Lei Chen	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	CHE 2140

MATH848W **Selected Topics in Geometry and Topology; Introduction to Conformal Field Theory**

Advanced topics of current interest.

0101	Richard Wentworth	Seats (Total: 18)
	TuTh 2:00pm - 3:15pm	MTH B0431

MATH858A **Selected Topics in Analysis**

Advanced topics of current interest.

Contact department for information to register for this course.

MATH858G **Selected Topics in Analysis; Geometric Methods in Analysis**

Advanced topics of current interest.

0101	Wojciech Czaja	Seats (Total: 20)
	MWF 10:00am - 10:50am	PHY 2211

MATH868A **SelectedTopics in Complex Analysis**

Advanced topics of current interest.

Contact department for information to register for this course.

MATH898 **Pre-Candidacy Research**
Contact department for information to register for this course.

MATH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

MEES Marine-Estuarine-Environmental Sciences Fall 2023

MEES423 **Comparative Animal Physiology**

Prerequisite: Undergraduate Biochemistry or Physiology. Jointly offered with: MEES623.

Introduces students to the many biochemical and physiological mechanisms that allow different species to inhabit a variety of ecosystems.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Kennedy Paynter Th 10:00am - 11:50am	Seats (Total: 5) Location: TBA

MEES498I **Topics in Marine-Estuarine-Environmental Sciences; Chesapeake Bay Health**

Lecture and/or laboratory series organized to study a selected area of marine-estuarine-environmental sciences not otherwise considered in formal courses.

Jointly offered with MEES698I. Credit only granted for MEES498I or MEES698I. Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Carys Mitchelmore MW 3:30pm - 4:50pm	Seats (Total: 20) Location: TBA

MEES603 **Responsible Conduct of Research**

Credit only granted for: MEES608B or MEES603. Formerly: MEES608B.

Explores the "rules of the road" for being a scientist. Using a case study approach, the seminar will cover concepts of how science is regulated, what constitutes misconduct, how research is planned, conducted, and reported authorship and data ownership, and the ethical treatment of human and animal subjects. The course will focus mainly on mentor-trainee interactions and diversity in the sciences.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Thomas Miller, Russell Hill Th 2:00pm - 3:30pm	Seats (Total: 30) Location: TBA

MEES608O **Seminar in Marine-Estuarine-Environmental Sciences; Topics in OMICS**

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Shao Du, Jum Sook Chung F 12:00pm - 12:50pm	Seats (Total: 20) Location: TBA	

MEES613 Environmental Statistics I

Credit only granted for: MEES698B or MEES613. Formerly: MEES698B.

Extends the quantitative training for students in the environmental sciences. It will explore the basic practices of statistics to inter-disciplinary environmental data. The goal is to train students with the statistical knowledge and tools needed to conduct statistical analysis in their own research. The statistical programming language R is used in class, to complete homework sets, and to analyze online data.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Dong Liang MW 9:30am - 10:50am F 2:00pm - 2:30pm	Seats (Total: 35) Location: TBA Location: TBA	 Discussion

MEES615 Scientific Writing and Communication

Restriction: Must have completed first year of graduate study; or permission of the instructor; and must have permission of the Marine Estuarine Environmental Sciences (MEES) Program. Credit only granted for: MEES608D or MEES615. Formerly: MEES608D. Additional information: Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

This professional development course will provide graduate students with a solid foundation in the fundamental concepts of scientific writing and communication to both scientists and citizens. Main topics will include the peer-review process and paper structure, how to develop strong editing and review skills, and how to craft effective research and outreach talks. Additional topics will include scientific ethics and application of communication skills to proposals, networking, job applications, and interviews. Students must agree to write new text for each writing assignment.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	William Nardin, Elizabeth North, Cynthia Palinkas, Jacob Cram F 9:00am - 10:50am	Seats (Total: 24) Location: TBA

MEES620 Environment and Society

Cross-listed with: ANTH620. Credit only granted for: ANTH620 or MEES620. Additional information: Offered over the interactive video network.

Students will obtain foundational knowledge of core theories and methods that integrate cultural and socio-economic research into environmental science. Key topics include: coupled natural and human systems, cultural models of the environment, social networks, ecological economics, political ecology, environmental justice, and science communication.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Matthew Gray, Kenneth Rose, Matthew Houser, William Dennison Th 2:00pm - 4:45pm	Seats (Total: 20) Location: TBA

MEES623 **Comparative Animal Physiology**

Recommended: Undergraduate Biochemistry or Physiology. Jointly offered with: MEES423.

Introduces students to the many biochemical and physiological mechanisms that allow different species to inhabit a variety of ecosystems.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Kennedy Paynter Th 10:00am - 11:50am	Seats (Total: 15) Location: TBA

MEES640 **Interconnected Earth Systems: Land, Ocean, and Estuary**

Explores the interconnected physical and biogeochemical systems of land, estuary, and ocean with cross cutting themes of human impacts and global change. Broad concepts will be combined with targeted interactive case studies to demonstrate how these systems are linked by humans, climate, and water.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Andrea Pain, Michael Gonsior, Laura Lapham, Cynthia Palinkas, Keith Eshleman TuTh 11:00am - 12:20pm	Seats (Total: 20) Location: TBA

MEES650 **Advanced Wetland Ecology**

Prerequisite: BIOM301; and ENST360 or other ecology equivalent; or permission of AGNR-Environmental Science and Technology department; or permission of CMNS-Marine & Estuarine-Environmental Science Program). Cross-listed with: ENST650. Jointly offered with: ENST450, MEES650. Credit only granted for: ENST450, ENST650, or MEES650. Additional information: Wading boots (at least hip length) are strongly recommended.

Plant and animal communities, biogeochemistry, and ecosystem properties of wetlands. Lectures are supplemented by field trips (normally 2 days total during the semester) and in-class labs. Hands-on activities and exercises include identification of wetland plant species, wetland mapping and delineation, and collection and analysis of field data on wetland vegetation, soil, and hydrology. Wading boots (at least hip length) are strongly recommended.

0101	Andrew Baldwin TuTh 2:00pm - 3:15pm	Seats (Total: 5) ANS 0538

MEES660 **Ecological Systems**

An introduction to the field of ecology is provided for matriculating graduate students and prepares them for more advanced concepts. Students will be exposed to ecology both in theory and practice through lectures, readings, and quantitative exercises, round table debates and discussions with current practitioners.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Robert Hilderbrand, Emily Cohen, Lora Harris MW 12:30pm - 1:50pm	Seats (Total: 20) Location: TBA

MEES680 **Cell and Molecular Biology for the Environmental Scientist- From Genes to Ecosystems**

Introduces environmental scientists to the methods and approaches that are the foundations for today's breakthroughs in molecular and cellular biology. Detailed examination of papers published in the last few years along with online background materials will be used to reinforce the connection of key concepts to experimentation.

Offered synchronously to all MEES partner institutions via video. e Please contact the instructor(s) for access and logistical information as needed.

0101	Eric Schott, Yantao Li, Tsvetan Bachvaroff MW 8:00am - 9:20am	Seats (Total: 20) Location: TBA

MEES698E **Special Topics in Marine-Estuarine-Environmental Sciences; Ecosystem Restoration**

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Jointly offered with GEOL453 and GEOL789L. Overview of critical ecosystem functions across biomes/geologic settings emphasizing tradeoffs in restoration designs. Case studies illuminate structure's influence over biophysical and biogeochemical processes supporting ecosystems; then show how properties of physical, chemical, and ecosystem processes can be altered by different restoration strategies, to optimize ecosyst em services and habitat quality. Includesa semester research project.

0101	Sujay Kaushal	Seats (Total: 25)
	Tu 3:30pm - 6:30pm	PLS 1115

MEES698I **Special Topics in Marine-Estuarine-Environmental Sciences; Chesapeake Bay Health**

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Jointly offered with MEES498I. Credit only granted for MEES498I or MEES698I. Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Carys Mitchelmore	Seats (Total: 20)
	MW 3:30pm - 4:50pm	Location: TBA

MEES698K **Special Topics in Marine-Estuarine-Environmental Sciences; Introduction to GIS**

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Matthew Fitzpatrick	Seats (Total: 12)
	Class time/details on ELMs	ONLINE

MEES698R **Special Topics in Marine-Estuarine-Environmental Sciences; Stable Isotopes in Environmental Research**

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Hali Kilbourne, Lee Cooper, David Nelson, Laura Lapham	Seats (Total: 20)
	TuTh 9:30am - 10:50am	Location: TBA

MEES698V **Special Topics in Marine-Estuarine-Environmental Sciences; Environmental Field Methods**

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Judith O'Neil, William Dennison, Katharina Engelhardt F 1:00pm - 4:00pm	Seats (Total: 10) Location: TBA

MEES698W **Special Topics in Marine-Estuarine-Environmental Sciences; Chemistry of Natural Water**

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Cross-listed with ENCE651. Credit only granted for ENCE651 or MEES698W. Application of principles from chemical thermodynamics and kinetics to the study and interpretation of the chemical composition of natural waters is rationalized by considering metal ion solubility controls, pH, carbonate equilibria, adsorption reactions, redox reactions and the kinetics of oxygenation reactions which occur in natural water environments.

0101	Alba Torrents Capdevila TuTh 8:00am - 9:15am	Seats (Total: 20) EGR 1102

MEES699 **Special Problems in Marine-Estuarine-Environmental Sciences**

(Perm req)

Research on specialized topics under the direction of individual faculty members.

Contact department for information to register for this course.

MEES718U **Study Groups on Issues in Marine Estuarine Enviornmental Sciences; Ecosystem Services and Urban Estuaries**

Active discussions on current environmental topics and issues. Efforts may result in manuscripts, technical report or innovative communication products.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Eric Schott, Jeffrey Cornwell Tu 2:00pm - 3:20pm	Seats (Total: 25) Location: TBA

MEES799 **Masters Thesis Research**
Contact department for information to register for this course.

MEES898 **Pre-Candidacy Research**
Contact department for information to register for this course.

MEES899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

MIEH Maryland Institute for Applied Environmental Health Fall 2023

MIEH300 **A Public Health Perspective: Introduction to Environmental Health**

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132; and must have completed or be concurrently enrolled in SPHL100 or PHSC300. Restriction: Must have earned a minimum of 60 credits; and must be in Public Health Science program; or permission of SPHL-School of Public Health. Credit only granted for: SPHL498N or MIEH300. Formerly: SPHL498N.

Environmental health is that branch of public health that deals with the human health effects of exposure to chemical, physical, and biological agents in the community, workplace, and home. Activities within Environmental Health Sciences are associated with recognizing, assessing, understanding, and mitigating the impacts of chemical, physical, and biological agents as well as understanding how human behavior and action impacts the environment. This course focuses on the central concepts, principles, issues, and applications of the essential scientific components and strategies of control of major environmental health problems.

0101	Jennifer German	Seats (Total: 20)	
	MW 9:00am - 9:50am W 10:00am - 11:50am	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		
0102	Jennifer German	Seats (Total: 20)	
	MW 9:00am - 9:50am W 12:00pm - 1:50pm	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		
0103	Jennifer German	Seats (Total: 20)	
	MW 9:00am - 9:50am W 2:00pm - 3:50pm	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		
0104	Jennifer German	Seats (Total: 20)	
	MW 9:00am - 9:50am W 4:00pm - 5:50pm	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		
0105	Jennifer German	Seats (Total: 20)	
	MW 9:00am - 9:50am F 8:00am - 9:50am	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		

0106	Jennifer German MW 9:00am - 9:50am F 10:00am - 11:50am	Seats (Total: 20) SPH 1312 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major.		
0107	Jennifer German MW 9:00am - 9:50am F 12:00pm - 1:50pm	Seats (Total: 20) SPH 1312 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major.		
0108	Jennifer German MW 9:00am - 9:50am F 2:00pm - 3:50pm	Seats (Total: 20) SPH 1312 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major.		
ESG1	Meleah Boyle Th 5:00pm - 7:30pm Class time/details on ELMs	Seats (Total: 35) BLD4 2322 ONLINE	 Discussion
	Restricted to Shady Grove students in the Public Health Science major.		

MIEH309 **Environmental Health Research**

(Perm req)

This research-based course will provide undergraduates with the opportunity to work closely with one of the faculty researchers in the Maryland Institute for Applied Environmental Health (MIAEH) within the School of Public Health. Our research covers multiple fields within the environmental health sciences (e.g. environmental epidemiology, exposure science, risk assessment, environmental microbiology, environmental microbial genomics, food toxicology, airborne infection transmission, environmental justice, and children's environmental health) that involve either laboratory-based research or non-laboratory based studies. Students will not only gain invaluable research and interpersonal skills but also contribute to MIAEH's ongoing environmental health research programs.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0202	Kristen Coleman Contact instructor or department for details.	Seats (Total: 5)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0204	Donald Milton, Kristen Coleman Contact instructor or department for details.	Seats (Total: 25)

0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 15)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 5)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)
0209	Rianna Murray Contact instructor or department for details.	Seats (Total: 5)
0210	Muhiuddin Haider Contact instructor or department for details.	Seats (Total: 5)
0211	Leena Malayil Contact instructor or department for details.	Seats (Total: 5)

MIEH321 **Environmental Determinants of Emerging Infectious Diseases**

Prerequisite: Must have completed or be concurrently enrolled in SPHL100.

Examines the influences of environmental factors, economic development, migration, and land use changes on emergence and reemergence of infectious diseases. Explores how population growth, development, and climate change impact natural reservoirs of infectious diseases and how they are transmitted through human populations. Includes historical accounts, newly emerging and reemerging diseases.

ESG1	Michael Bazaco W 5:00pm - 7:30pm *Restricted to Shady Grove students in the Public Health Science major.*	Seats (Total: 35) ONLINE

MIEH333 **Every Drop Counts: Water, Food and Global Public Health**

Prerequisite: ENSP101 or MIEH300; or permission of department. Cross-listed with: ENSP360. Credit only granted for: MIEH333 or ENSP360.

In-depth interdisciplinary study of the public health issues related to water use for global food production. Topics will include accessibility and availability of safe water for agriculture worldwide, potential microbiological and chemical hazards in agricultural water, alternative water sources such as reclaimed wastewater and return flows, food safety approaches to managing agricultural water, and agricultural influences on surface and groundwater quality. Political, social, and economic factors relating to agricultural water will be addressed, with special focus on regions that are leaders in innovative water management and regions where access to clean water for agriculture is a major challenge.

0101	Leena Malayil	Seats (Total: 25)
	M 9:00am - 10:30am	ONLINE
	Class time/details on ELMs	ONLINE

MIEH600 **Foundations of Environmental Health**

Credit only granted for: HLTH761 or MIEH600. Formerly: HLTH761.

Overview of the chemical, physical and biological hazards present in our living and working environment and their effects on human health. Topics include: exposure assessment, industrial hygiene and safety, pesticides, community and indoor pollution, food-borne diseases, solid and hazardous wastes, water resources, risk assessment, ecological issues and environmental laws.

0201	Rachel Goldstein	Seats (Total: 20)
	W 10:00am - 11:30am	SPH 0305
	Class time/details on ELMs	ONLINE

MIEH605 **Fundamentals of Global Health**

Credit only granted for: SPHL600 or SPHL698A. Formerly: SPHL698A.

Exploration of theoretical frameworks and practicial perspectives in global health with particular attention to the analysis of the biological, epidemiological, social, cultural and behavioral interactions that affect global health study and project implementation. The emphasis is on innovative solutions to health issues in underserved populations.

GH01	Muhiuddin Haider	Seats (Total: 20)
	W 5:00pm - 7:00pm	ONLINE
	Class time/details on ELMs	ONLINE

MIEH609 **Methods in Environmental Health**

This research-based rotation in environmental health sciences will provide graduate students with the opportunity to work closely with faculty researchers in the Maryland Institute for Applied Environmental Health (MIAEH) within the School of Public Health. Our research covers multiple fields within the environmental health sciences (e.g. environmental epidemiology, exposure science, risk assessment, environmental microbiology, environmental microbiology, environmental microbial genomics, food toxicology, airborne infection transmission, environmental justice, and children's environmental health) that involve either laboratory-based research or non-laboratory based studies. Students will not only gain invaluable research experience and interpersonal skills but also contribute to MIAEH's ongoing environmental health research programs.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0204	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 5)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)

MIEH691 **UMD Global STEWARDS: Project-Based Data Practicum at the Nexus of Food, Energy, and Water Systems**

(Perm req)

Prerequisite: MIEH690,. Restriction: Permission of instructor; and must be in UMD Global STEWARDS Fellows.

The range of food-energy-water (FEW) systems challenges from local to global scales. During the semester, students will gain real-world experience by participating in the conceptualization and/or conduct of an interdisciplinary FEW systems project. Projects may employ engineering, life sciences, epidemiological or policy approaches; earth system sciences frameworks; computational methods; and/or other innovative approaches. Through this work, students will gain hands-on experience in study design, research methods, and data analysis across varying FEW disciplines. Each student will bring a diverse set of expertise to the projects, creating a microcosm for interdisciplinary team science. During the course, students will have the opportunity to refine oral and written communication skills, including team writing. The deliverable for the course may include a grant proposal, a manuscript, a FactSheet, an Op-Ed, or another actionable type of science/policy writing.

0201	Rianna Murray	Seats (Total: 16)
	W 1:00pm - 3:45pm	CCC 1200

MIEH699 **UMD Global STEWARDS: Seminal Findings, and Research and Policy in Progress at the Food, Energy, Water Nexus**

Engaging discourse covering seminal findings, as well as research and policy in progress at the food, energy, water (FEW) nexus. Course meetings will include dissections of groundbreaking FEW nexus articles; presentations by faculty members and students, followed by interdisciplinary discussions; and presentations by visiting leaders working at the FEW nexus across career sectors.

0101	Suhana Chattopadhyay	Seats (Total: 15)
	Th 12:00pm - 1:00pm	SPH 2234CC
	Class time/details on ELMs	ONLINE

MIEH740 **Environmental Health Risk Assessment**

Prerequisite: MIEH600; or permission of instructor.

Review of the major methods of human and ecological risk assessment conducted by the U.S. Environment Protection Agency. Emphasis on sources of uncertainty.

0201	Abdel-Razak Kadry	Seats (Total: 15)
	Tu 4:00pm - 6:45pm	SPH 0301

MIEH778 **Practical Experience in Public Health**

(Perm req)

Practice experience and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the practice experience will depend upon the student's background and career goals.

0201	Rianna Murray	Seats (Total: 5)
	Contact instructor or department for details.	

MIEH780 **Occupational Health**

Prerequisite: MIEH720 and MIEH771; and must have completed SPHL602. Or permission of instructor.

A synthesis of epidemiology, toxicology, exposure science, risk assessment, and policy. Emphasis will be on methods for anticipating, recognizing, evaluating and controlling workplace hazards; the hierarchy of controls; and current hot topics in occupational health.

0101	Kathleen McPhaul M 4:00pm - 6:45pm	Seats (Total: 15) SPH 2234CC

MIEH783 **Proposal Development and Marketing for Public Health Scientists**

Every scientist, whether in academia, government, or industry, must write compelling proposals if they are to succeed in having resources to pursue their passions and interests. To write a compelling proposal, we must develop clear and concise hypotheses and definitive ways to test them. But to have an impact, to get funded, to graduate, we must also excel at marketing our ideas and our achievements to other scientists and the public. This course is designed for doctoral students and postdoctoral fellows who want to develop and hone their proposal development and marketing skills.

0101	Robin Puett Tu 10:30am - 1:00pm Class time/details on ELMs	Seats (Total: 15) SPH 2234CC ONLINE

MIEH786 **Capstone Project in Public Health**

(Perm req)

Prerequisite: Permission of SPHL-Maryland Institute for Applied Environmental Health.

Capstone experience provding opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0204	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)

0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 5)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)
0209	Jennifer German Contact instructor or department for details.	Seats (Total: 5)
0210	Candice Duncan Contact instructor or department for details.	Seats (Total: 5)

MIEH788 **Critical Readings in Environmental Health**

In-depth examination and critical discussion of the current literature relevant to environmental health.

Contact department for information to register for this course.

MIEH789 **Independent Study**

(Perm req)

Individual reading and/or research under a specific faculty member in the department.

Contact department for information to register for this course.

MIEH799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

MIEH898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

MIEH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

MITH Maryland Institute for Technology in the Humanities Fall 2023

MITH388T **Digital Humanities Research Assistantship; Maryland Institute for Technology in the Humanities Internships**

(Perm req)

An applied introduction to the theory and practice of digital research. The internship includes regular meetings with MITH staff, including designers, developers, information professionals, project managers, and faculty, to gain knowledge of existing digital scholarship and resources within the arts and humanities. Students may contribute to existing MITH projects or propose a small, independent research project on which they will receive support from MITH staff.

0101	Purdom Lindblad	Seats (Total: 5)
	Contact instructor or department for details.	

MITH498C **Special Topics in Applied Digital Humanities; Digital Narratives: Representation and Resistance**

An introduction to special topics, and technical approaches, for theoretically grounded humanities and social sciences digital research. Class meetings will introduce students to a variety of technical approaches potentially applicable to the specific topical foci; the theoretical basis for selecting, evaluating, and modifying technical approaches; and best practices in project management.

Cross-listed with THET408C. Credit only granted for THET408C or MITH498C.

0101	Van Tran Nguyen, Elizabeth Alexander	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	PAC 1809

MITH628B **Special Topics in Digital Humanities; Research Assistantship**

A graduate level introduction to special topics, and technical approaches, for theoretically grounded humanities and social sciences digital research. Class meetings will introduce students to a variety of technical approaches potentially applicable to the specific topical foci; the theoretical basis for selecting, evaluating, and modifying technical approaches; and best practices in project management.

0101	Raffaele Viglianti	Seats (Total: 15)
	Contact instructor or department for details. Class time/details on ELMs	ONLINE

MITH729 **Colloquium in Digital Studies**

Colloquium in support of the ARHU-MITH Graduate Certificate in Digital Studies. We will meet periodically (approximately 4-5 times a semester) to read and discuss current work in the field, interact with visiting speakers, share work in progress, learn new tools and methods, and hear research presentations from one another.

Cross-listed with COMM698M. Credit only granted for MITH729 or COMM698M.

0101	Catherine Steele	Seats (Total: 25)
	F 3:00pm - 5:00pm	SKN 3115

MLAW MPower Undergraduate Law Programs Fall 2023

MLAW100 **Justice and the Law**

Restriction: Course enrollment is restricted to students in the College Park Scholars Justice and Legal Thought Program (CPJT).

An exploration into the relationship between justice and law, including psychological, philosophical, political and legal approaches to justice, as well as an analytical framework for understanding human rights.

0101	Robert Koulish TuTh 11:00am - 12:15pm	Seats (Total: 83) CCC 1100

MLAW304 Introduction to Law and Social Inquiry

Restriction: Must be in the Law and Society (MLAW) minor.

An exploration of the relationship between law and society from an interdisciplinary perspective. Major themes cover the impact of law on society, society on law and social change.

0101	Christine White TuTh 11:00am - 12:15pm	Seats (Total: 35) TWS 0234
0201	Christine White MW 11:00am - 12:15pm	Seats (Total: 35) TWS 0205

MLAW305 Law and Legal Institutions in Social Context

Prerequisite: MLAW304. Restriction: Must be a student in the Law and Society Minor.

An exploration of case law, statutes, and regulations separately and together in their social context.

0101	Brian Gilmore TuTh 9:30am - 10:45am	Seats (Total: 35) ASY 3207

MLAW315 Citizenship and Naturalization in America

Restriction: Must be in the Law and Society minor (MLAW); or must be in College Park Scholars Justice and Legal Thought (CPJT).

Notions of who is an American - and who is not - are deeply rooted in the American ethos. Although the United States has long been praised for its inclusiveness vis-a-vis citizenship - including a policy of jus soli, or birthright citizenship - a closer look reveals a difficult history involving the categorical exclusion of many groups from American citizenship. We will examine this history, focusing particularly on Black and Native Americans and immigrants, and drawing upon legal cases, historical texts, and personal narratives detailing the lived experiences of those seeking American citizenship. We will trace this history to the present and explore the current process and requirements for becoming an American citizen. Students will have an opportunity to engage guests and discussions from the Maryland Carey School of Law and other experts.

0101	Grace Benton	Seats (Total: 18)
	W 5:30pm - 7:10pm	TLF 0110

MLAW358T **Selected Topics in Law and Society; Tackling Trafficking: The Legal System's Responses to Human Trafficking**

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

0101	Christine White	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	SPH 0305

MLAW358X **Selected Topics in Law and Society; Introduction to Constitutional Law**

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

Prerequisites: GVPT170 and GVPT331. Jointly offered with GVPT431. Credit only granted for GVPT431 or MLAW358X.

0101	Martin Kobren	Seats (Total: 5)
	MW 2:00pm - 3:15pm	SQH 1120

MLAW359 **Undergraduate Teaching Assistant Experience**

(Perm req)

Designed to engage experienced Law and Society students as mentors and class leaders. Students will be involved in lesson planning, course design, field trips, and class discussion as they develop their leadership and public speaking skills.

0101	Brandee Pettus	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

MLAW378K **Special topics in Law and Society; The US Supreme Court and American Society**

An interdisciplinary examination in law and society, relying on scholarly interpretations of specific substantive topics of law

This course investigates the United States Supreme Court and its role in politics, government, and society. Other than its constitutional justification, why do we need and have a U.S. Supreme Court? What are some of the most important opinions issued by the Supreme Court that changed society, for the good, and bad? Who are the Court's most important justices? And most of all, how does the Court work? This course will trace the development of the constitutional doctrine of the Court, the growth of the Court's institutional power, and the Court s interaction with Congress, the president, and society. Discussed are major constitutional law decisions, their political contexts, and the social and behavioral factors that affect judges, justices, and federal court jurisprudence. There will be a strong emphasis on how the Court's decisions have impacted law and society and how the Court helps to maintain a certain kind of society.

0101	Brian Gilmore	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	CSI 2120

MLAW378P **Special topics in Law and Society; Introduction to Criminal Procedure**

An interdisciplinary examination in law and society, relying on scholarly interpretations of specific substantive topics of law

This class will provide students with a basic understanding of the constitutional law undergirding criminal investigations in the United States. Focused primarily on the Fourth, Fifth and Sixth Amendments, students will leave the class able to identify and apply the basic tenets of search and seizure law as it applies to various police-citizen interactions.

0101	Renee Hutchins	Seats (Total: 25)
	Tu 3:30pm - 6:00pm	TWS 0234

MLAW388 **Law and Society Internship**

Participation in the Law and Society Internship (LASI) offers students the opportunity to enhance their education through practical skill building in the realm of law-related professionals.

Restricted to students within the Law and Society minor.

0101	Brandee Pettus	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

MLAW404 **Law & Society Capstone**

(Perm req)

Restriction: Student must be enrolled in the Law and Society minor.

An exploration of the implications of technology on law and society from a variety of perspectives.Significant issues will be taken from contemporary scholarship and court cases.

Contact department for information to register for this course.

MLSC MD Language Science Ctr Fall 2023

MLSC250 **Lol that's not funny: Language change and linguistic creativity in online communication**

Recent developments in technology, from texting to Zoom, have created new environments for human language use. Examining how communication is changing in these environments highlights humans' endless linguistic ingenuity -- ranging from new vocabulary and punctuation conventions to the use of hashtags, emoji and memes. At the same time, these linguistic innovations exemplify broader patterns of language change and diversity that have been documented and studied by language scientists. In this course, we will engage with the study of language variation and change through a survey of language use in different online environments, and will apply insights from linguistic research to analyze our own and others' language use in more nuanced ways.

FC01	Emily Lord	Seats (Total: 20)
	TuTh 3:00pm - 4:15pm	HJP 2123
	Restricted to students in Freshmen Connection	

MLSC308 **PULSAR Language Science Research Seminar**

(Perm req)

Research seminar for students in the PULSAR language science program. Weekly presentations and discussions on diverse topics in language science research, as well as on developing research skills.

0101	Andrea Zukowski	Seats (Total: 25)
	Contact instructor or department for details.	

MOCB Molecular and Cell Biology Fall 2023

MOCB608 **Molecular and Cell Biology Seminar**

(Perm req)

Seminar in molecular and cell biology.

0101	Jonathan Dinman	Seats (Total: 12)
	Contact instructor or department for details.	

MOCB699 **Laboratory Rotation**

(Perm req)

Laboratory experience in molecular-cell biology.

Contact department for information to register for this course.

MOCB898 **Pre-Candidacy Research**
Contact department for information to register for this course.

MOCB899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

MSML Machine Learning Fall 2023

MSML601 **Probability and Statistics**

Prerequisite: Undergraduate courses in calculus and basic linear algebra. Cross-listed with: DATA601, BIOI601. Credit only granted for: BIOI601, DATA601 or MSML601.

Provides a solid understanding of the fundamental concepts of probability theory and statistics. The course covers the basic probabilistic concepts such as probability space, random variables and vectors, expectation, covariance, correlation, probability distribution functions, etc. Important classes of discrete and continuous random variables, their inter-relation, and relevance to applications are discussed. Conditional probabilities, the Bayes formula, and properties of jointly distributed random variables are covered. Limit theorems, which investigate the behavior of a sum of a large number of random variables, are discussed. The main concepts random processes are then introduced. The latter part of the course concerns the basic problems of mathematical statistics, in particular, point and interval estimation and hypothesis testing.

PCS1	Leonid Koralov	Seats (Total: 50)
	W 6:00pm - 8:45pm	CSI 1122
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	
PCS2	Sandra Cerrai	Seats (Total: 40)
	W 6:00pm - 8:45pm	CSI 1121
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	
PCS3	Jonathan Fernandes	Seats (Total: 40)
	W 6:00pm - 8:45pm	CSI 3117
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSML602 **Principles of Data Science**

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: DATA602, BIOI602. Credit only granted for: BIOI602, DATA602, MSML602 or CMSC641. Formerly: CMSC641.

An introduction to the data science pipeline, i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of what data science means and systems and tools commonly used for data science, and illustrates the principles of data science through several case studies.

PCS1	Mohammad Hajiaghayi	Seats (Total: 70)
	Tu 6:00pm - 8:45pm	IRB 0318
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

PCS2	Mohammad Hajiaghayi Th 6:00pm - 8:45pm	Seats (Total: 70) IRB 0318
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSML603 **Principles of Machine Learning**

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: DATA603, BIOI603, MSQC603. Credit only granted for: BIOI603, DATA603, MSML603, MSQC603 or CMSC643. Formerly: CMSC643.

A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning: Bayes decision theory, discriminant functions, maximum likelihood estimation, nearest neighbor rule, linear discriminant analysis, support vector machines, neural networks, deep learning networks. Unsupervised learning: clustering, dimensionality reduction, PCA, auto-encoders. The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

PCS1	Babak Azimi-Sadjadi Th 6:00pm - 8:45pm	Seats (Total: 60) CSI 3117
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	
PCS2	Alejandra Mercado F 9:00am - 11:45am	Seats (Total: 50) CSI 1122
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	
PCS3	Babak Azimi-Sadjadi Sa 9:00am - 11:45am	Seats (Total: 40) EGR 1104
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSML642 **Robotics**

Prerequisite: DATA603, MSML603, or MSQC603.

Machine learning can expand the capabilities of robotic systems including UAV, and applies to a variety of robotic system functions including planning, control, and perception. Robot Learning covers the application of learning techniques including Reinforcement Learning, Learning from Demonstration, Evolutionary, and Robot Shaping that may be used with a variety of machine learning paradigms. A variety of paradigms are available to generate models (e.g., CMAC, lazy learning, LWR, RBF, deep networks). These learning techniques and paradigms are then combined with traditional robotic control approaches (e.g., motor schema, behavior-based, direct and inverse methods) to create controllers to control the robots while operating in real-world environments. This course will explore applying machine learning techniques, paradigms, and control design to robotic systems including UAV. Students will construct a simulation environment for robot system by using machine learning methods.

PCS1	Jerry Wu	Seats (Total: 50)
	Th 6:00pm - 8:45pm	CSI 1122
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSML650 Cloud Computing

Cross-listed with: DATA650. Credit only granted for: MSML650 or DATA650.

Presents the state of the art in cloud computing technologies and applications. Topics will include: telecommunications needs, architectural models for cloud computing, cloud computing platforms and services. Data center networking, server, network and storage virtualization technologies, and containerization. Cloud operating and orchestration systems. Security, privacy, and trust management; resource allocation and quality of service; interoperability and internetworking.

PCS1	Zoltan Safar	Seats (Total: 50)
	Tu 6:00pm - 8:45pm	CSI 2117
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSML651 Big Data Analytics

The challenges, tools and methods to design and implement machine learning algorithms for very large datasets, and the configuration and operation of distributed computing platforms to execute them. Topics include scalable learning techniques, data streaming and data flow analytics, machine learning on large graphs. Massively parallel computing models such as map-reduce, and techniques to reduce the memory, disk storage and/or communication requirements of parallel machine learning algorithms. SQL and no-SQL database systems, distributed file systems, key-value stores, document databases, graph databases and large dataset visualization.

PCS1	Paul Rodrigues	Seats (Total: 50)
	M 6:00pm - 8:45pm	CSI 1121
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSQC Quantum Computing Fall 2023

MSQC601 **Mathematics and Methods of Quantum Computing**

This course will provide the student with the necessary mathematical tools and background knowledge to understand, model, and conceptualize quantum computing and its building blocks and systems. We shall review concepts of computation and how they translate to the microscopic world.

PCS1	Alfredo Nava-Tudela	Seats (Total: 20)
	Tu 6:00pm - 8:45pm	CHE 2145
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSQC602 **Physics of Quantum Devices**

An introduction to quantum physics with emphasis on topics at the frontiers of research, and developing understanding through exercises.This course aims to build a bridge between natural principles such as light and atoms and a variety of modern applications. This course will provide the student with the necessary physical intuition and background information on quantum physics so that to be able to understand and appreciate a variety of applications in quantum computing such as quantum currency, encryption, random number generation

PCS1	Charles Clark	Seats (Total: 20)
	M 6:00pm - 8:45pm	CHE 2145
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSQC603 **Principles of Machine Learning**

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: DATA603, BIOI603, MSML603. Credit only granted for: BIOI603, DATA603, MSML603, MSQC603 or CMSC643. Formerly: CMSC643.

A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning: Bayes decision theory, discriminant functions, maximum likelihood estimation, nearest neighbor rule, linear discriminant analysis, support vector machines, neural networks, deep learning networks. Unsupervised learning: clustering, dimensionality reduction, PCA, auto-encoders. The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

PCS1	Babak Azimi-Sadjadi	Seats (Total: 60)
	Th 6:00pm - 8:45pm	CSI 3117
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

PCS2	Alejandra Mercado F 9:00am - 11:45am	Seats (Total: 50) CSI 1122	
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.		
PCS3	Babak Azimi-Sadjadi Sa 9:00am - 11:45am	Seats (Total: 40) EGR 1104	
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.		

MUED Music Education Fall 2023

MUED155 **Fundamentals for the Classroom Teacher**

Restriction: Must be in one of the following programs (Early Childhood Education; Elementary Education) ; or must be a Pre-Elementary Education major; or must be a Pre-Early Childhood Education major.

The fundamentals of music theory and practice, related to the needs of the classroom and the kindergarten teacher.

0101	Darren Shillingford M 4:15pm - 6:45pm	Seats (Total: 25) PAC 3160	

MUED186 **Pre-professional Experiences I**

(Perm req)

Restriction: Must be in Music Education program. Additional information: Fulfills the College of Arts and Humanities requirement for ARHU158.

An orientation into the role of the music teacher in the school and community. On-site school visits at elementary, middle and high school levels form the basis for discussion and exploration of all facets of the music education profession.

0101	Mike Hewitt M 10:00am - 10:50am F 9:00am - 10:50am	Seats (Total: 30) PAC 2164 PAC 1230	 Lab

MUED213 **String Technique and Pedagogy I**

Restriction: Must be in Music Education program.

A study of violin, viola, cello and bass technique and pedagogy; beginning level. Emphasizes group process playing and teaching.

0101	Allison Durbin	Seats (Total: 25)
	MWF 10:00am - 10:50am	PAC 2540

MUED215 **Woodwind Technique and Pedagogy**

(Perm req)

Restriction: Permission of ARHU-School of Music department.

Playing experience on instruments of the woodwind family. Historical and acoustical background. Basic concepts of teaching. Methods and materials. Techniques of individual and class instruction.

0101	Amy Sierzega	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	PAC 2540

MUED320 **Teaching Secondary Instrumental Music I**

(Perm req)

Prerequisite: MUED187. Restriction: Must be in Music Education program.

Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to extend secondary-level musical skill through planned instruction and development of teaching materials.

0101	Stephanie Prichard	Seats (Total: 12)
	TuTh 9:30am - 10:45am	PAC 1230

MUED333 **Classroom Vocal Pedagogy**

(Perm req)

Prerequisite: MUED187 and MUED186. Restriction: Must be in Music Education program.

An introduction to the fundamentals of group vocal pedagogy for the choral and general classroom teacher, including the teaching of posture, breathing, resonance, registration, articulation and foreign language diction as appropriate to needs of the child or adolescent singer in K-12 classroom settings.

0101	Kenneth Elpus	Seats (Total: 10)
	W 4:00pm - 6:30pm	PAC 2130A

MUED420 **Teaching Secondary Instrumental Music II**

(Perm req)

Prerequisite: MUED320 and MUED311. Restriction: Must be in Music Education program.

Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to develop and/or maintain an exemplary, curricular-oriented, research-based, comprehensive secondary instrumental program.

0101	Mike Hewitt Tu 9:00am - 11:00am Th 8:00am - 12:00pm	Seats (Total: 20) PAC 2540 Location: TBA	Lab

MUED422 **Teaching General Music II**

Prerequisite: MUED322 and MUED333. Restriction: Must be in Music Education program. Credit only granted for: MUED422 or MUED471. Formerly: MUED471.

Designed as an advanced music methods course and field experience for students who are preparing for a career in general music. The field experience is a practicum that is co-supervised by the university instructor and a general music educator.

0101	Robin Giebelhausen Tu 9:00am - 11:00am Th 8:00am - 12:00pm	Seats (Total: 15) PAC 2130A Location: TBA	Lab

MUED474 **Field Experiences: Pre-Student Teaching**

(Perm req)

Prerequisite: MUED420 and MUED411; or (MUED472 and MUED471). Restriction: Permission of ARHU-School of Music department; and senior standing.

Field experiences to fulfill teaching requirements in K-12 music teacher education program.

0101	Lauren McGinley, Christian Folk F 8:00am - 8:50am Contact instructor or department for details.	Seats (Total: 15) PAC 2130A

MUED484 **Student Teaching in Elementary School: Music**

(Perm req)

Corequisite: MUED494. Restriction: Permission of ARHU-School of Music department; and must be in Music Education program.

Fulfills elementary teaching requirements in K-12 music teacher education program. Limited to music education majors who have previously applied.

0101	Samuel Gray, Justin Caithaml Th 5:00pm - 6:30pm Contact instructor or department for details.	Seats (Total: 15) PAC 2130A

MUED494 **Student Teaching in Secondary School: Music**

(Perm req)

Corequisite: MUED484. Restriction: Permission of ARHU-School of Music department; and must be in Music Education program.

Fulfill secondary teaching requirements in K-12 music teacher education program. Limited to music education majors who have previously applied.

Students must pay a $750.00 student teaching fee.

0101	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 15)

MUED499B **Workshops, Clinics, Institutes; Music and Community Engagement**

(Perm req)

Innovative and experimental dimensions of music education offered to meet the needs of music teachers and music supervisors allowing students to individualize their programs.

Cross-listed with MUED698B. Credit only granted for MUED499B or MUED699B.

0101	Robin Giebelhausen Class time/details on ELMs	Seats (Total: 30) ONLINE

MUED690 **Research Methods in Music and Music Education**

(Perm req)

The application of methods of research to problems in the fields of music and music education. The preparation of bibliographies and the written exposition of research projects in the area of the student's major interest.

0101	Kenneth Elpus Tu 5:00pm - 7:30pm	Seats (Total: 10) PAC 2130A

MUED698B **Current Trends in Music Education; Music and Community Engagement**

(Perm req)

A survey of current and emerging philosophies, methodologies and curricula in music education and their implementation. The influence of educational and social changes and the expanding musical scene upon the music programs for children of all ages and for teacher education.

Cross-listed with MUED499B. Credit only granted for MUED499B or MUED699B.

0101	Robin Giebelhausen Class time/details on ELMs	Seats (Total: 30) ONLINE

MUED698Q **Current Trends in Music Education; Qualitative and Mixed Methods Research in Music Education**

(Perm req)

A survey of current and emerging philosophies, methodologies and curricula in music education and their implementation. The influence of educational and social changes and the expanding musical scene upon the music programs for children of all ages and for teacher education.

0101	Stephanie Prichard M 10:00am - 12:30pm	Seats (Total: 5) PAC 2130A

MUED698V **Current Trends in Music Education; Vocal Pedagogy for the Choral Conductor**

(Perm req)

A survey of current and emerging philosophies, methodologies and curricula in music education and their implementation. The influence of educational and social changes and the expanding musical scene upon the music programs for children of all ages and for teacher education.

0101	Kenneth Elpus W 4:00pm - 6:30pm	Seats (Total: 5) Location: TBA

MUED729 **Doctoral Colloquium in Music Education**

(Perm req)

For students in PhD Progam in Music Education. Meets approximately 4-5 times per semester to read and discuss current work in the field, interact with visiting speakers, share work in progress, learn new tools and methods, and hear research presentations from one another

0101	Stephanie Prichard Contact instructor or department for details.	Seats (Total: 10)

MUSC School of Music Fall 2023

MUSC001 **MUSP Course Evaluation**

(Perm req)

Contact department for information to register for this course.

MUSC099 **Performance Attendance**

(Perm req)

Performance attendance laboratory for undergraduate music majors.

0101	Gilberto Cruz Contact instructor or department for details.	Seats (Total: 200)

MUSC102 **Class Piano**

(Perm req)

Functional piano training for beginners. Development of techniques for school and community playing. Basic piano techniques; chord, arpeggio and scale techniques; melody and song playing; simple accompaniments, improvisation for accompaniments and rhythms; sight reading and transposition and playing by ear.

For MUSC majors only.

0101	Michael Blum MWF 8:00am - 8:50am	Seats (Total: 14) PAC 1123
0201	Isabella Lee MWF 2:00pm - 2:50pm	Seats (Total: 14) PAC 1123
0301	Michael Blum TuTh 9:30am - 10:45am	Seats (Total: 12) PAC 1123

MUSC102B **Class Piano**

Functional piano training for beginners. Development of techniques for school and community playing. Basic piano techniques; chord, arpeggio and scale techniques; melody and song playing; simple accompaniments, improvisation for accompaniments and rhythms; sight reading and transposition and playing by ear.

0101	Isabella Lee TuTh 11:00am - 12:15pm	Seats (Total: 14) PAC 1123

MUSC106 **Beginning Classical Guitar**

Introduction to classical guitar notation, technique, literature and performance. No previous musical experience required.

For students with no previous musical experience.

0101	Gerard Kunkel MW 11:00am - 11:50am	Seats (Total: 12) PAC 1230
FC01	Gerard Kunkel MW 3:00pm - 3:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 14) PAC 2168

MUSC123 **Movement for Singers**

(Perm req)

Prerequisite: Permission of ARHU-School of Music department.

Systematic exercises, improvisations and dances in conjunction with artistic vocal expression. Performance and critique of stage deportment, gestures and recital techniques.

0101	Jessica Harika	Seats (Total: 15)	
	Tu 6:15pm - 7:45pm	TWS 1121	

MUSC127 **Vocal Diction: Italian**

(Perm req)

Prerequisite: Permission of ARHU-School of Music department. Restriction: Must be in a major within the ARHU-School of Music department.

Augmentation of private voice study. Phonetics and diction for singers of Italian vocal literature.

0101	Diba Alvi	Seats (Total: 15)	
	TuTh 2:00pm - 2:50pm	PAC 3164	

MUSC128 **Sight Reading For Pianists**

(Perm req)

A course to give the piano major an opportunity to develop proficiency in sight reading at the keyboard.

0101	Johnny Shaw	Seats (Total: 5)	
	MW 10:00am - 10:50am	PAC 1123	

MUSC129A **Ensemble; Chamber Music - Strings**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

For MUSC majors only.

0101	Laura Colgate	Seats (Total: 45)	
	Meets September 5, 2023 - December 11, 2023		
	TuTh 11:00am - 12:15pm	PAC 2201	Lab

MUSC129B **Ensemble; Chamber Woodwinds**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

For MUSC majors only.

0101	Laura Colgate, Rita Sloan, Joseph Grimmer **Meets September 5, 2023 - December 11, 2023** TuTh 11:00am - 12:15pm	Seats (Total: 40) PAC 2201	Lab

MUSC129C **Ensemble; Chamber Music - Brasses**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

For MUSC majors only.

0101	Laura Colgate, Justin Drew **Meets September 5, 2023 - December 11, 2023** TuTh 11:00am - 12:15pm	Seats (Total: 30) PAC 2201	Lab

MUSC129G **Ensemble; Balinese Gamelan**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	I Suadin Th 7:00pm - 8:30pm	Seats (Total: 20) PAC 1230	Lab

MUSC129K **Ensemble; Japanese Koto**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Yuriko Gandolfo Tu 5:30pm - 7:00pm	Seats (Total: 7) PAC 3160	Lab

MUSC129L **Ensemble; Advanced Japanese Koto**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Yuriko Gandolfo	Seats (Total: 4)	
	Tu 7:00pm - 8:30pm	PAC 3160	Lab

MUSC129P **Ensemble; Percussion**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Jonathan Bisesi	Seats (Total: 15)	
	M 5:00pm - 7:30pm	PAC 2540	Lab
	W 5:15pm - 7:15pm	PAC 2540	Lab

MUSC129Q **Ensemble; Korean Percussion Ensemble**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Sebastian Wang	Seats (Total: 8)	
	Th 7:00pm - 8:30pm	PAC 2170	

MUSC129U **Ensemble; Tuba & Euphonium**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Craig Potter	Seats (Total: 20)	
	W 6:00pm - 7:30pm	Location: TBA	Lab

MUSC140 **Music Fundamentals I**

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

Introductory theory course. Notation, scales, intervals, triads, rhythm, form and basic aural skills.

0101	Sean Klink	Seats (Total: 18)	
	MW 11:00am - 11:50am	PAC 2168	
	F 11:00am - 11:50am	PAC 1108	Discussion
0201	Sean Klink	Seats (Total: 18)	
	MW 12:00pm - 12:50pm	PAC 2168	
	F 12:00pm - 12:50pm	PAC 1108	Discussion

FC01	Richard Drehoff Tu 3:00pm - 4:15pm Th 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 10) PAC 3160 PAC 1108	 Discussion

MUSC150 **Theory of Music I**

(Perm req)

Prerequisite: Departmental audition and entrance examination. Restriction: Must be in one of the following programs (Music (Liberal Arts Program); Music (Jazz Performance Option); Music (Winds & Percussions Performance Option); Music (Voice Performance Option); Music Composition; Music (Professional Program); Music (Piano Performance Option); Music Performance-Winds and Percussion; Music Theory and Composition; Music Performance-Piano; Music Performance-Jazz Studies; Music Performance-Voice; Music Performance-Strings; Music (Strings Performance Option)).

A study of basic concepts and skills in tonal melody and harmony through analysis and composition.

0101	Richard Layton MWF 8:00am - 8:50am TuTh 8:25am - 9:15am	Seats (Total: 11) PAC 2160 PAC 3168	 Lab
0102	Richard Layton MWF 8:00am - 8:50am TuTh 9:30am - 10:20am	Seats (Total: 11) PAC 2160 PAC 3168	 Lab
0201	Richard Layton MWF 9:00am - 9:50am TuTh 8:25am - 9:15am	Seats (Total: 11) PAC 2160 PAC 2164	 Lab
0202	Richard Layton MWF 9:00am - 9:50am TuTh 9:30am - 10:20am	Seats (Total: 11) PAC 2160 PAC 2164	 Lab
0301	Johannes Visser MWF 10:00am - 10:50am TuTh 8:25am - 9:15am	Seats (Total: 11) PAC 2160 PAC 2168	 Lab
0302	Johannes Visser MWF 10:00am - 10:50am TuTh 9:30am - 10:20am	Seats (Total: 11) PAC 2160 PAC 2168	 Lab

0401	Nicholas Morandi MWF 8:00am - 8:50am TuTh 9:30am - 10:20am	Seats (Total: 11) PAC 2168 PAC 3160	 Lab
0402	Nicholas Morandi MWF 8:00am - 8:50am TuTh 8:25am - 9:15am	Seats (Total: 11) PAC 2168 PAC 3164	 Lab

MUSC202 **Intermediate Class Piano I**

(Perm req)

Prerequisite: MUSC103; or must have equivalent piano training.

Advanced keyboard techniques. Continuation of skills introduced in MUSC103. Transposition, modulation and sight reading; methods of teaching functional piano.

Only for voice and instrumental principals with limited piano experience.

0101	Johnny Shaw MWF 9:00am - 9:50am	Seats (Total: 15) PAC 1123	

MUSC204 **Popular Music in Black America**

Traces black popular music in the U.S. with a special focus on spirituals, ragtime, the blues, early jazz, R&B, Motown, funk, soul, and rap. Examines how these styles have been borrowed by the American music industry.

0101	Matthew Valnes MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 15) SHM 2102 PAC 3168	 Discussion
0102	Matthew Valnes MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 15) SHM 2102 PAC 3168	 Discussion
0103	Matthew Valnes MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 15) SHM 2102 PAC 3168	 Discussion
0104	Matthew Valnes MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 15) SHM 2102 PAC 3160	 Discussion

0105	Matthew Valnes MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 15) SHM 2102 PAC 3160	Discussion
0106	Matthew Valnes MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 15) SHM 2102 PAC 3160	Discussion
0107	Matthew Valnes MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 15) SHM 2102 PAC 1815	Discussion
0108	Matthew Valnes MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 15) SHM 2102 PAC 1815	Discussion
0109	Matthew Valnes MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 15) SHM 2102 PAC 1815	Discussion

MUSC205 **History of Popular Music, 1950-Present**

A historical survey of rock music (blues, rock, soul, metal, rap, etc.) from circa 1950 to the present, with emphasis on popular music as music and popular music as social history.

0101	Kelsey Klotz MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 17) KEY 0106 PAC 2164	Discussion
0102	Kelsey Klotz MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 17) KEY 0106 PAC 2164	Discussion
0103	Kelsey Klotz MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 17) KEY 0106 PAC 2164	Discussion
0104	Kelsey Klotz MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 17) KEY 0106 PAC 2168	Discussion

0105	Kelsey Klotz MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 17) KEY 0106 PAC 2168	Discussion
0106	Kelsey Klotz MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 17) KEY 0106 PAC 2168	Discussion
0107	Kelsey Klotz MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 17) KEY 0106 PAC 2200	Discussion
0108	Kelsey Klotz MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 17) KEY 0106 PAC 2200	Discussion
0109	Kelsey Klotz MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 17) KEY 0106 PAC 2200	Discussion
0110	Kelsey Klotz MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 17) KEY 0106 PAC 3164	Discussion
0111	Kelsey Klotz MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 17) KEY 0106 PAC 3164	Discussion
0112	Kelsey Klotz MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 17) KEY 0106 PAC 3164	Discussion
FC01	Matthew Valnes MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) TYD 2106	

MUSC210 **The Impact of Music on Life**

Credit only granted for: MUET210 or MUSC210. Formerly: MUET210.

Music as a part of culture. Materials drawn from traditions throughout the globe to illustrate issues of historical and contemporary significance, including the impact of race, class and gender on the study of music.

0101	Nicole Powlison MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 16) ASY 2203 PAC 1809	Discussion
0102	Nicole Powlison MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 16) ASY 2203 PAC 1809	Discussion
0103	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 16) ASY 2203 PAC 1809	Discussion
0104	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ASY 2203 PAC 1809	Discussion
0105	Nicole Powlison MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 16) ASY 2203 PAC 1809	Discussion
0106	Nicole Powlison MW 1:00pm - 1:50pm F 3:00pm - 3:50pm	Seats (Total: 16) ASY 2203 PAC 1809	Discussion
0107	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 16) ASY 2203 PAC 2168	Discussion
0108	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ASY 2203 PAC 2168	Discussion
0109	Nicole Powlison MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 16) ASY 2203 PAC 2168	Discussion
0110	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 16) ASY 2203 PAC 3168	Discussion

0111	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ASY 2203 PAC 3168	Discussion
0112	Nicole Powlison MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 16) ASY 2203 PAC 3168	Discussion

MUSC215 **World Popular Musics and Identity**

Credit only granted for: MUET200 or MUSC215. Formerly: MUET200.

Focus on popular musics in different cultures with an emphasis on cross-cultural comparisons and analysis of how musics and identity intersect.

0101	Laura Schnitker MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 16) MMH 1400 PAC 1815	Discussion
0102	Laura Schnitker MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) MMH 1400 PAC 1815	Discussion
0103	Laura Schnitker MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 16) MMH 1400 PAC 1815	Discussion
0104	Laura Schnitker MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) MMH 1400 ANS 0402	Discussion
0105	Laura Schnitker MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 16) MMH 1400 ANS 0402	Discussion
0106	Laura Schnitker MW 12:00pm - 12:50pm F 3:00pm - 3:50pm	Seats (Total: 16) MMH 1400 ANS 0402	Discussion
0107	Laura Schnitker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 16) MMH 1400 PLS 1168	Discussion

0108	Laura Schnitker MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 16) MMH 1400 PLS 1168		Discussion
0109	Laura Schnitker MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) MMH 1400 PLS 1168		Discussion

MUSC227 **Vocal Diction: German**

(Perm req)

Prerequisite: Permission of ARHU-School of Music department. Restriction: Must be in a major within ARHU-School of Music department.

Augmentation of private study. Phonetics and diction for singers of German vocal literature.

0101	Diba Alvi TuTh 11:00am - 11:50am	Seats (Total: 15) PAC 3164		

MUSC229A **Ensemble; Symphony Orchestra**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	David Neely TuTh 3:30pm - 6:30pm	Seats (Total: 70) PAC 1230		Lab
FC01	David Neely TuTh 3:30pm - 6:30pm *Restricted to students in Freshmen Connection.*	Seats (Total: 1) PAC 1230		Lab

MUSC229D **Ensemble; Wind Orchestra**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition, contact instructor to make arrangements.

0101	Michael Votta	Seats (Total: 75)	
	TuTh 3:30pm - 6:30pm	PAC 2540	Lab

MUSC229E **Ensemble; Wind Ensemble**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition, contact instructor to make arrangements.

0101	Andrea Brown	Seats (Total: 75)	
	MWF 11:00am - 12:30pm	PAC 2540	Lab
FC01	Andrea Brown	Seats (Total: 5)	
	MWF 11:00am - 12:30pm	PAC 2540	Lab
	Restricted to students in Freshmen Connection.		

MUSC229F **Ensemble; Marching Band**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition.

0101	Andrea Brown	Seats (Total: 300)	
	MWF 3:00pm - 5:00pm	PAC 2540	Lab
FC01	Craig Potter	Seats (Total: 10)	
	MWF 3:00pm - 5:00pm	PAC 2540	Lab
	Restricted to students in Freshmen Connection.		

MUSC229G **Ensemble; Marching Band: Woodwinds and Brass**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Corequisite: MUSC 229F.

0101	Andrea Brown	Seats (Total: 300)	
	Tu 6:30pm - 8:30pm	PAC 2540	Lab

FC01	Craig Potter	Seats (Total: 10)	
	Tu 6:30pm - 8:30pm	PAC 2540	Lab
	Restricted to students in Freshmen Connection.		

MUSC229I **Ensemble; Marching Band: Drumline and Auxiliary**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Corequisite: MUSC 229F.

0101	Craig Potter, Andrea Brown	Seats (Total: 75)	
	Tu 6:30pm - 8:30pm	PAC 2540	Lab
	Th 6:30pm - 8:30pm	PAC 2540	Lab
FC01	Craig Potter, Andrea Brown	Seats (Total: 10)	
	Tu 6:30pm - 8:30pm	PAC 2540	Lab
	Th 6:30pm - 8:30pm	PAC 2540	Lab
	Restricted to students in Freshmen Connection.		

MUSC229J **Ensemble; Jazz Ensemble**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Mark Williams	Seats (Total: 25)	
	MW 5:30pm - 7:15pm	PAC 1230	Lab
0201	Tim Powell	Seats (Total: 30)	
	MW 1:00pm - 2:20pm	PAC 1230	Lab
0301	Hart Guonjian-Pettit	Seats (Total: 30)	
	M 7:30pm - 9:30pm	PAC 1230	Lab

MUSC229K **Ensemble; Marching Band Dance Team**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Ann Kennedy	Seats (Total: 30)	
	Su 7:00pm - 9:30pm	Location: TBA	Lab
	TuTh 6:30pm - 9:00pm	Location: TBA	Lab
FC01	Ann Kennedy	Seats (Total: 10)	
	Su 7:00pm - 9:30pm	Location: TBA	Lab
	TuTh 6:30pm - 9:00pm	Location: TBA	Lab
	Restricted to students in Freshmen Connection.		

MUSC229P **Ensemble; Pep Band**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Craig Potter, Andrea Brown	Seats (Total: 100)	
	TBA	PAC 2540	Lab
FC01	Craig Potter, Andrea Brown	Seats (Total: 60)	
	M 7:30pm - 9:30pm	PAC 2540	Lab
	Restricted to students in Freshmen Connection.		

MUSC229R **Ensemble; University Orchestra**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	David Neely	Seats (Total: 50)	
	MW 3:00pm - 5:00pm	PAC 1230	Lab
FC01	Shun Yao	Seats (Total: 10)	
	MW 3:00pm - 5:00pm	Location: TBA	Lab
	Restricted to students in Freshmen Connection.		

MUSC229U **Ensemble; University Band**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition, contact instructor to make arrangements.

0101	Craig Potter W 7:30pm - 9:30pm	Seats (Total: 100) PAC 2540	 Lab
FC01	Craig Potter W 7:30pm - 9:30pm *Restricted to students in Freshmen Connection.*	Seats (Total: 10) PAC 2540	 Lab

MUSC229Z **Ensemble; Jazz Combo**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Gerard Kunkel Contact instructor or department for details.	Seats (Total: 10)	
0201	Thomas Baldwin Tu 5:00pm - 6:30pm	Seats (Total: 10) Location: TBA	 Lab
0301	Mark Williams Contact instructor or department for details.	Seats (Total: 10)	
0401	Leigh Pilzer Contact instructor or department for details.	Seats (Total: 10)	

MUSC240 **Elements of Music Composition for Non-Majors**

Prerequisite: MUSC 140, or by permission of instructor. Recommended: Ability to read music on a grand staff (treble and bass clef). Restriction: Must not be in any of the following programs: (Music (Professional Program); Music Education). Credit only granted for: MUSC240 or HONR218M. Formerly: HONR218M.

Emphasizes learning concepts and techniques of music composition through the study of music theory and structure used in both classical and popular music forms. Students will compose music using computer assisted and composition tools. These tools include cloud based digital audio workstations and music notation programs. Compositions will be written in these musical styles but not limited to classical, jazz, and popular. Students will also explore methods of sharing their compositions on various digital platforms.

0101	William Evans Tu 2:00pm - 4:30pm	Seats (Total: 18) PAC 1108	

MUSC250 **Advanced Theory of Music I**

(Perm req)

Prerequisite: Minimum grade of C- in MUSC151.

A continuation of MUSC 151, with further study of chromatic and modulatory techniques of the nineteenth century. Emphasis on sight singing, ear training, analysis and compositional skills.

0101	Anna Nelson TuTh 8:00am - 9:15am MW 8:00am - 8:50am	Seats (Total: 5) PAC 3160 PAC 2164	 Lab
0102	Anna Nelson TuTh 8:00am - 9:15am MW 9:00am - 9:50am	Seats (Total: 5) PAC 3160 PAC 2164	 Lab
0201	Anna Nelson TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 6) PAC 2160 PAC 3164	 Lab
0202	Anna Nelson TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 6) PAC 2160 PAC 3164	 Lab
0301	Mark Wilson TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 6) ONLINE PAC 3168	 Lab
0302	Mark Wilson TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 6) ONLINE PAC 3168	 Lab

MUSC260 **Music as Global Culture**

(Perm req)

Prerequisite: MUSC151. Restriction: Must be in a major within the ARHU-School of Music department. Credit only granted for: MUSC220 or MUSC260.

Explores how and why people create, transform, and move music around the globe. Taking a comparative approach to Western art musics and other musics of the world, course will examine a variety of musical practices in their social, political, and economic contexts. Experiential knowledge will be developed through hands-on ethnographic research.

0101	Elizabeth Massey MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 16) PAC 2200 PAC 2160	 Discussion
0102	Elizabeth Massey MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 16) PAC 2200 PAC 2160	 Discussion
0103	Elizabeth Massey MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 16) PAC 2200 PAC 2160	 Discussion
0104	Elizabeth Massey MW 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 16) PAC 2200 PAC 2160	 Discussion

MUSC269R **Special Topics in Study Abroad II; From Elvis to Rap: 50 Years of History As Seen Through Rock Music**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC328 **Introduction to Chamber Music for Pianists**

(Perm req)

A course to introduce the piano major to chamber music at a moderately difficult level. Class instruction will center on actual rehearsal and coaching geared toward performance, and will be supplemented by further experience in applied instrumental studios.

0101	Alexei Ulitin Contact instructor or department for details.	Seats (Total: 10)

MUSC329A **Ensemble; University of Maryland Chorale**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted, contact instructor to make arrangements. Monthly evening rehearsals will be scheduled as announced.

0101	David Mann	Seats (Total: 75)	
	TuTh 4:30pm - 6:00pm	PAC 2201	Lab

MUSC329B **Ensemble; Chamber Singers**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted, contact instructor to make arrangements. Monthly evening rehearsals will be scheduled as announced.

0101	Jason Ferdinand	Seats (Total: 50)	
	MW 3:00pm - 3:50pm	PAC 2201	Lab
	TuTh 3:30pm - 4:20pm	PAC 2201	Lab

MUSC329E **Ensemble; Gospel Choir**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Anne Carswell	Seats (Total: 60)	
	Th 7:00pm - 10:00pm	PAC 2201	Lab

MUSC329M **Ensemble; Ensemble: Tactus (Tenor & Bass Choir)**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Monthly evening rehearsals will be scheduled as announced.

0101	Trevor Tran	Seats (Total: 40)	
	MWF 12:00pm - 12:50pm	PAC 1230	Lab
	Sharing with Craig Arnold's approval even though there are two different instructors.		
FC01	Trevor Tran	Seats (Total: 10)	
	MWF 12:00pm - 12:50pm	PAC 1230	Lab
	Restricted to students in Freshmen Connection.		

MUSC329O **Ensemble; Opera Chorus**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Jason Ferdinand F 3:30pm - 5:30pm	Seats (Total: 30) PAC 2170	Lab

MUSC329W **Ensemble; Treble Choir**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Monthly evening rehearsals will be scheduled as announced.

0101	Kenneth Elpus MWF 12:00pm - 12:50pm	Seats (Total: 60) PAC 2201	Lab
FC01	Kenneth Elpus MWF 12:00pm - 12:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 10) PAC 2201	Lab

MUSC361 **Music in Western Culture After 1900**

(Perm req)

Prerequisite: MUSC360. Restriction: Must be in a major within the ARHU-School of Music department. Credit only granted for: MUSC330 or MUSC361.

Continuation of MUSC360. A historical study of Western classical music, popular music, and jazz since 1900.

0101	William Robin MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 16) PAC 2201 PAC 3160	Discussion
0102	William Robin MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 16) PAC 2201 PAC 3160	Discussion
0103	William Robin MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 16) PAC 2201 PAC 3160	Discussion

0104	William Robin	Seats (Total: 16)		
	MW 2:00pm - 2:50pm F 3:00pm - 3:50pm	PAC 2201 PAC 3160		Discussion

MUSC369M **Special Topics in Study Abroad III; Masterpieces of Italian Opera**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC379 **Opera Workshop**

(Perm req)

Open to music and non-music majors (by audition). Operatic production and performance, performance techniques and coaching, stage direction, set design, costume design and make-up. Repertory will include smaller operatic works, excerpts or scenes.

0101	Mai-Linh Pham, Corinne Hayes	Seats (Total: 15)	
	MW 4:00pm - 6:00pm	PAC 2170	Lab

MUSC386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-School of Music department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

MUSC388 **Music Internship**

(Perm req)

Pre-professional field work in music.

Contact department for information to register for this course.

MUSC389 **Music Internship Analysis**

(Perm req)

Documentation and evaluation of field work experience.

Contact department for information to register for this course.

MUSC428 **Repertoire Coaching of Vocal or Chamber Music**

(Perm req)

A course for piano students who wish to go further than the work offered in MUSC128, MUSC228 and MUSC328 by becoming specialists in the areas of vocal coaching or chamber music coaching. Elements of pedagogy, conducting and responsible artistic decision-making for the entire musical production.

0101	Rita Sloan	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC443 **Solo Vocal Literature**

(Perm req)

Prerequisite: MUSC330 and MUSC331; or students who have taken courses with comparable content may contact the department.

The study of solo vocal literature from the Baroque Cantata to the Art Song of the present. The Lied, Melodie, vocal chamber music and the orchestral song are examined.

0101	Diba Alvi TuTh 9:30am - 10:45am	Seats (Total: 10) PAC 2201

MUSC444 **Wind and Percussion Literature**

(Perm req)

Prerequisite: Permission of ARHU-School of Music department. Corequisite: MUSP420 or MUSP419.

Recital program notes and written projects in wind or percussion literature.

Contact department for information to register for this course.

MUSC446 **String Literature**

(Perm req)

Prerequisite: MUSP316; and permission of ARHU-School of Music department.

Recital program notes and written projects in string literature.

Contact department for information to register for this course.

MUSC448 **Selected Topics in Music**

(Perm req)

Contact department for information to register for this course.

MUSC448B **Selected Topics in Music; Analysis of Popular Music**

(Perm req)

Cross-listed with MUSC699B. Credit only granted for MUSC448B or MUSC699B.

0101	Daniel Zimmerman W 4:00pm - 6:30pm	Seats (Total: 15) PAC 2160

MUSC448E **Financial Entrepreneurship for Arts Leaders**

Cross-listed with: ARHU340. Credit only granted for: ARHU340 or MUSC448E.

An introduction to financial entrepreneurship for the arts leader in order to prepare students for diverse and ever-changing careers in the arts and creative fields. Topics explored will include Professional Paperwork (resumes, cover letters, biographies, job searches), Financial Literacy (taxes, budgets, boards, tickets sales, musicians unions), Marketing (website development, social media, press packets, record labels vs. online distribution, headshots, audience development, community engagement, branded content), Communication (public speaking, writing), and Technology (online tools, computer software, peripherals, recording, photography/videography, on campus resources).

0101	Elizabeth Schurgin TuTh 9:30am - 10:45am	Seats (Total: 14) PAC 1815
0102	Elizabeth Schurgin TuTh 9:30am - 10:45am	Seats (Total: 14) PAC 1815

MUSC448G **Selected Topics in Music; History of Mass, from Machaut to the Present**

(Perm req)

0101	Barbara Haggh-Huglo MW 2:00pm - 3:15pm	Seats (Total: 20) PAC 3160

MUSC448L **Selected Topics in Music; US Popular Music**

(Perm req)

0101	Kelsey Klotz MW 9:00am - 10:15am	Seats (Total: 20) PAC 3160

MUSC448W **Selected Topics in Music; Instrumental Pedagogy**

(Perm req)

Contact department for information to register for this course.

MUSC448Z **Selected Topics in Music; Music in the Baroque Era**

(Perm req)

0101	Barbara Haggh-Huglo MW 11:00am - 12:15pm	Seats (Total: 20) PAC 3164

MUSC450 **Musical Form**

(Perm req)

Prerequisite: MUSC251.

A study of the principles of organization in music with emphasis on eighteenth and nineteenth century European music. Reading and analysis of scores exemplifying the musical forms.

0101	Daniel Zimmerman TuTh 2:00pm - 3:15pm	Seats (Total: 25) PAC 2164

MUSC453 **Jazz Improvisation I**

(Perm req)

Prerequisite: MUSC251; or students who have taken courses with comparable content may contact the department. And permission of ARHU-School of Music department. Credit only granted for: MUSC345 or MUSC453. Formerly: MUSC345.

Jazz theory, notational conventions, improvisation techniques, reading and analysis of music, and performance in small combo format.

0101	Mark Williams M 7:30pm - 9:30pm Contact instructor or department for details.	Seats (Total: 8) PAC 1208

MUSC455 **Theory of Jazz**

(Perm req)

Prerequisite: MUSC250; or permission of ARHU-School of Music department. Restriction: Must be in a major within ARHU-School of Music department.

Analysis of jazz harmony, with emphasis on principles of substitution, reharmonization, and syntax. Topics may also include chord/scale relationships, phrasing and articulation, notation, and introductory arranging concepts such as orchestration and form.

0101	Leigh Pilzer MW 4:00pm - 5:15pm	Seats (Total: 12) PAC 3168

MUSC469C **Orchestral Excerpts for String Players; Violin**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

Restriction: Permission of department.

0101	David Salness Contact instructor or department for details.	Seats (Total: 10)

MUSC469D **Orchestral Excerpts for String Players; Viola**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

Restriction: permission of department.

0101	Daniel Foster Contact instructor or department for details.	Seats (Total: 10)

MUSC469E **Orchestral Excerpts for String Players; Orchestral Excerpts for String Players: Cello**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Rachel Young Contact instructor or department for details.	Seats (Total: 10)

MUSC469F **Orchestral Excerpts for String Players; Bass**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Richard Barber W 4:30pm - 5:45pm	Seats (Total: 15) Location: TBA

MUSC469V **Orchestral Excerpts for String Players; Harp**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Sarah Fuller Contact instructor or department for details.	Seats (Total: 10)

MUSC490 **Conducting**

(Perm req)

Prerequisite: MUSC251.

Vocal and instrumental baton techniques.

0101	Andrea Brown MWF 9:00am - 9:50am	Seats (Total: 12) PAC 2540
0201	Nathan Lofton, Jason Ferdinand, Mark Helms MWF 1:00pm - 1:50pm	Seats (Total: 13) PAC 2201

MUSC492 **Keyboard Music I**

(Perm req)

Prerequisite: Permission of ARHU-School of Music department.

The history and literature of harpsichord and solo piano music from its beginning to the romantic period. Emphasis is placed on those segments of repertory which are encountered in performance and teaching situations at the present time.

0101	Mayron Tsong	Seats (Total: 15)
	MW 11:00am - 12:15pm	PAC 3160

MUSC499 **Independent Studies**

(Perm req)

Independent research on a topic chosen in consultation with the instructor, which may culminate in a paper or appropriate project.

Contact department for information to register for this course.

MUSC550 **Theory of Music Graduate Review**

(Perm req)

Restriction: Permission of ARHU-School of Music department.

Music theory review for graduate students:aural training, counterpoint, basic diatonic harmony, chromatic harmony, and analysis of complete works.

0101	Anna Nelson	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	PAC 2160

MUSC601 **Advanced English Lyric Diction**

(Perm req)

Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) . And permission of instructor; or admission to graduate voice program.

Concepts, strategies and techniques for singing operatic, oratorio and song literature in English: stress patterns, linkage, stressed and non stressed vowels, dipthongs, placement of consonants and vowels, and communication of text with emphasis on current performance practices. Use of the International Phonetic Alphabet (IPA) will be stressed.

0101	Theresa Bickham	Seats (Total: 15)
	Tu 10:30am - 12:00pm	PAC 2170

MUSC604 **Advanced French Lyric Diction**

(Perm req)

Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) . And permission of instructor; or admission to graduate voice program.

Concepts, strategies and techniques for singing operatic and song literature in French: phoneticization, formation and singing of the vowel-sounds, semi-consonants, and consonants; the liaison; legato singing in French; the hiatus, mute and aspirate 'h'; stress and word rhythm. Use of the International Phonetic Alphabet (IPA) will be stressed.

0101	Gran Wilson Tu 10:30am - 12:00pm	Seats (Total: 15) PAC 1218

MUSC605 **Opera Repertory I**

(Perm req)

Prerequisite: MUSC602; or permission of instructor. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)).

Advanced vocal coaching of selections from the Italian, French, German, and English opera repertory: musical accuracy; language facility; diction clarity; and dramatic interpretation.

0101	John Holiday W 11:30am - 1:00pm	Seats (Total: 10) PAC 3168

MUSC608 **Chamber Music Repertory; Chamber Music Repertoire**

(Perm req)

Prerequisite: graduate standing as a major in performance. A study, through performance, of diversified chamber music for standard media.

Contact department for information to register for this course.

MUSC609 **Piano Chamber Music Practicum and Analysis**

(Perm req)

Study of repertoire written for piano in duos or with several instruments, to develop an accompanists advanced performance skills in listening, balance, nuance in dynamics, harmonic motion and phrasing.

0101	Rita Sloan Contact instructor or department for details.	Seats (Total: 10)

MUSC611 **Opera Techniques I**

(Perm req)

Corequisite: MUSC601. Restriction: Permission of director of opera; and must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)).

Techniques for opera performance: Improvisation; Acting I, Scene Study I; and Movement I. Practical application of styles and techniques to operatic repertoire.

0101	Steven Bailey, Corinne Hayes	Seats (Total: 10)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC613 **Opera Techniques III**

(Perm req)

Prerequisite: Minimum grade of B- in MUSC612; and permission of Director of Opera required. Corequisite: MUSC603 and MUSC605. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)).

Continuation of MUSC 612. Techniques for opera performance: Scene Study III; Movement III; and Shakespeare.

0101	Steven Bailey, Corinne Hayes	Seats (Total: 10)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC629A **Ensemble; Symphony Orchestra**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	David Neely	Seats (Total: 50)	
	TuTh 3:30pm - 6:30pm	PAC 1230	Lab

MUSC629C **Ensemble; Wind Ensemble**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Andrea Brown	Seats (Total: 20)	
	MWF 11:00am - 12:30pm	PAC 2540	Lab

MUSC629F **Ensemble; Marching Band**

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Andrea Brown	Seats (Total: 175)	
	MWF 3:00pm - 5:00pm	PAC 2540	Lab

MUSC629G **Ensemble; Balinese Gamelan**

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	I Suadin Th 7:00pm - 8:30pm	Seats (Total: 5) PAC 1230	 Lab

MUSC629H **Ensemble; Harp**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Sarah Fuller TuTh 11:00am - 12:15pm	Seats (Total: 1) Location: TBA	 Lab

MUSC629J **Ensemble; Jazz Ensemble**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Mark Williams MW 5:30pm - 7:15pm	Seats (Total: 20) PAC 1230	 Lab
0201	Mark Williams MW 1:00pm - 2:20pm	Seats (Total: 10) PAC 1230	 Lab
0301	Mark Williams M 7:30pm - 9:30pm	Seats (Total: 10) PAC 1230	 Lab

MUSC629K **Ensemble; Japanese Koto**

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Yuriko Gandolfo Tu 5:30pm - 7:00pm	Seats (Total: 2) PAC 3160	 Lab

MUSC629L **Ensemble; Advanced Japanese Koto**

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Yuriko Gandolfo Tu 7:00pm - 8:30pm	Seats (Total: 4) PAC 3160	 Lab

MUSC629O **Ensemble; Tuba & Euphonium**

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Craig Potter W 6:00pm - 7:30pm	Seats (Total: 5) Location: TBA	 Lab

MUSC629P **Ensemble; Percussion Ensemble**

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Jonathan Bisesi M 5:00pm - 7:30pm W 5:15pm - 7:15pm	Seats (Total: 5) PAC 2540 PAC 2540	 Lab Lab
0201	Jonathan Bisesi Contact instructor or department for details.	Seats (Total: 5)	

MUSC629Q **Ensemble; Korean Percussion Ensemble**

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Sebastian Wang Th 7:00pm - 8:30pm	Seats (Total: 2) PAC 2170	

MUSC629R **Ensemble; Repertoire Orchestra**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	David Neely MW 3:00pm - 5:00pm	Seats (Total: 10) PAC 1230	 Lab

MUSC629U **Ensemble; University Band**

Rehearsal and performance of selected works for small and large instrumental ensembles.

Open by audition, contact instructor to make arrangements.

0101	Craig Potter W 7:30pm - 9:30pm	Seats (Total: 10) PAC 2540	 Lab

MUSC629W **Ensemble; Wind Orchestra**

Rehearsal and performance of selected works for small and large instrumental ensembles.

Open by audition, contact instructor to make arrangements.

0101	Michael Votta TuTh 3:30pm - 6:30pm	Seats (Total: 30) PAC 2540	 Lab

MUSC629Z **Ensemble; Jazz Combo**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Gerard Kunkel Contact instructor or department for details.	Seats (Total: 10)	
0201	Thomas Baldwin Th 5:00pm - 6:30pm	Seats (Total: 10) Location: TBA	 Lab
0301	Mark Williams Contact instructor or department for details.	Seats (Total: 10)	
0401	Hart Guonjian-Pettit Contact instructor or department for details.	Seats (Total: 10)	

MUSC646 **Introduction to Musicology**

(Perm req)

Prerequisite: Graduate student standing in in the School of Music. Credit only granted for: MUSC648 or MUSC646.

An introduction to the basics of musicological research, including sources, methodologies, and techniques, as well as the fundamentals of both academic and non-academic writing.

0101	William Robin TuTh 11:00am - 12:15pm	Seats (Total: 10) PAC 3110A	

MUSC648 **Seminar in Music Research; Seminar in Music Research**

(Perm req)

An introduction to graduate study in the history and literature of music. Bibliography and methodology of systematic and historical musicology.

0101	Lars Helgert Tu 7:00pm - 9:30pm	Seats (Total: 15) PAC 2515C	

0201	Lars Helgert	Seats (Total: 15)	
	M 6:00pm - 8:30pm	PAC 2160	
0301	Matthew Valnes	Seats (Total: 15)	
	TuTh 9:30am - 10:45am	PAC 2515C	

MUSC649A **Ensemble; University of Maryland Chorale**

(Perm req)

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	David Mann	Seats (Total: 10)	
	TuTh 4:30pm - 6:00pm	PAC 2201	Lab

MUSC649B **Ensemble; Chamber Singers**

(Perm req)

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Jason Ferdinand	Seats (Total: 10)	
	MW 3:00pm - 3:50pm	PAC 2201	Lab
	TuTh 3:30pm - 4:20pm	PAC 2201	Lab

MUSC649E **Ensemble; Ensemble: Gospel Choir**

0101	Anne Carswell	Seats (Total: 10)	
	Th 7:00pm - 10:00pm	PAC 2201	Lab

MUSC649M **Ensemble; Ensemble: Tactus (Tenor & Bass Choir)**

0101	Trevor Tran	Seats (Total: 10)	
	MWF 12:00pm - 12:50pm	PAC 1230	Lab

MUSC649O **Ensemble; Opera Chorus**

(Perm req)

0101	Mark Helms	Seats (Total: 15)	
	F 3:30pm - 5:30pm	PAC 2170	Lab

MUSC649W **Ensemble; Treble Choir**

0101	Kenneth Elpus	Seats (Total: 10)	
	MWF 12:00pm - 12:50pm	PAC 2201	Lab

MUSC653 **Jazz Improvisation I**

(Perm req)

Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC653 or MUSC699Z. Formerly: MUSC699Z.

Study of improvisational techniques and historical styles of jazz, including study of jazz "language" through transcription and analysis of recorded solos, and the exploration of creative processes and philosophical concepts.

0101	Mark Williams	Seats (Total: 8)
	M 7:30pm - 9:30pm	PAC 1208
	Contact instructor or department for details.	

MUSC655 **Theory of Jazz**

(Perm req)

Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC655 ir MUSC699J. Formerly: MUSC699J.

Analysis of jazz harmony, with emphasis on principles of substitution, reharmonization, and syntax. Topics may also include chord/scale relationships, phrasing, articulation, notation and orchestration.

0101	Leigh Pilzer	Seats (Total: 12)
	MW 4:00pm - 5:15pm	PAC 3168

MUSC659A **Seminar in Repertoire and Pedagogy**

(Perm req)

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	Jason Ferdinand	Seats (Total: 6)
	Contact instructor or department for details.	

MUSC659B **Seminar in Repertoire and Pedagogy; Orchestral Repertoire and Pedagogy**

(Perm req)

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	David Neely	Seats (Total: 6)
	Contact instructor or department for details.	

MUSC659C **Seminar in Repertoire and Pedagogy; Wind Repertoire and Pedagogy**

(Perm req)

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	Michael Votta	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC669C **Orchestral Excerpts for String Players; Violin**

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	David Salness	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC669D **Orchestral Excerpts for String Players; Viola**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Daniel Foster	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC669E **Orchestral Excerpts for String Players; Orchestral Excerpts for String Players: Cello**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Rachel Young	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC669F **Orchestral Excerpts for String Players; Bass**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Richard Barber	Seats (Total: 15)
	W 4:30pm - 5:45pm	Location: TBA

MUSC669V **Orchestral Excerpts for String Players; Harp**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Sarah Fuller	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC670 **Advanced Analytical Techniques I**

(Perm req)

Prerequisite: MUSC451; or permission of ARHU-School of Music department.

Analysis of representative masterpieces of the eighteenth and early nineteenth centuries.

0101	Gretchen Horlacher MW 2:00pm - 3:15pm	Seats (Total: 15) PAC 2160

MUSC677 **Introduction to Ethnomusicology**

(Perm req)

Restriction: Permission of ARHU-School of Music department.

An introduction to the field of ethnomusicology: its origins as comparative musicology, its establishment as an autonomous discipline, and its contemporary trajectories.

0101	Fernando Rios W 3:30pm - 6:00pm	Seats (Total: 12) PAC 3110A

MUSC679 **Seminar in Ethnomusicology**

(Perm req)

Seminar topics address current issues, including gender, the social economy of music, ethnography of performance, etc.

Contact department for information to register for this course.

MUSC679K **Seminar in Ethnomusicology; Music and Folklorization**

(Perm req)

Seminar topics address current issues, including gender, the social economy of music, ethnography of performance, etc.

0101	Fernando Rios Th 3:30pm - 6:00pm	Seats (Total: 12) PAC 3110A

MUSC689 **Advanced Conducting**

(Perm req)

A concentrated study of the conducting techniques involved in the repertoire of all historical periods.

0101	Michael Votta M 1:00pm - 3:30pm	Seats (Total: 5) PAC 3164
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

MUSC699 **Selected Topics in Music**

(Perm req)

Contact department for information to register for this course.

MUSC699B **Selected Topics in Music; Analysis of Popular Music**

(Perm req)

Cross-listed with MUSC448B. Credit only granted for MUSC448B or MUSC699B.

0101	Daniel Zimmerman W 4:00pm - 6:30pm	Seats (Total: 15) PAC 2160

MUSC699D **Selected Topics in Music; Diction for Pianists**

(Perm req)

0101	Mai-Linh Pham Contact instructor or department for details.	Seats (Total: 5)

MUSC699L **Selected Topics in Music; Translating Music/ally: From the Page to the Stage and Screen**

(Perm req)

0101	Olga Haldey Tu 3:30pm - 6:00pm	Seats (Total: 12) PAC 3110A

MUSC699W **Selected Topics in Music; Instrumental Pedagogy**
Contact department for information to register for this course.

MUSC757 **Aural Skills for Conductors**

(Perm req)

Restriction: Permission of ARHU-School of Music department.

Advanced musicianship skills necessary for conductors.

0101	David Neely Tu 12:30pm - 1:30pm W 1:00pm - 2:15pm	Seats (Total: 5) PAC 2126 PAC 2126

MUSC758 **Advanced Aural Skills for Conductors**

(Perm req)

Continuation of MUSC757, advanced aural skills necessary for conductors.

0101	Michael Votta W 1:00pm - 2:15pm	Seats (Total: 5) PAC 2126

MUSC799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

MUSC800P **Advanced Seminar in Music Pedagogy**

(Perm req)

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Bradford Gowen F 10:00am - 12:30pm	Seats (Total: 15) Location: TBA

MUSC800V **Advanced Seminar in Music Pedagogy**

(Perm req)

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Lori Sen Contact instructor or department for details.	Seats (Total: 5)

MUSC800W **Advanced Seminar in Music Pedagogy**

(Perm req)

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Sarah Frisof Contact instructor or department for details.	Seats (Total: 10)
0201	Mark Hill Contact instructor or department for details.	Seats (Total: 10)
0301	Robert DiLutis Contact instructor or department for details.	Seats (Total: 10)

0401	Erich Heckscher Contact instructor or department for details.	Seats (Total: 10)
0501	Tim Powell Contact instructor or department for details.	Seats (Total: 10)
0601	Gregory Miller Contact instructor or department for details.	Seats (Total: 10)
0701	Paul Gekker Contact instructor or department for details.	Seats (Total: 10)
0801	Matthew Guilford Contact instructor or department for details.	Seats (Total: 10)
0901	Willie Clark Contact instructor or department for details.	Seats (Total: 10)
1001	Paul Kellner Contact instructor or department for details.	Seats (Total: 10)
1101	Jonathan Bisesi Contact instructor or department for details.	Seats (Total: 10)
1201	Joseph Grimmer Contact instructor or department for details.	Seats (Total: 5)
1301	Justin Drew Contact instructor or department for details.	Seats (Total: 5)

MUSC802A **Advanced Seminar in Music Pedagogy III**

(Perm req)

Prerequisite: MUSC801. Restriction: Permission of ARHU-School of Music department.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument.

0101	Mai-Linh Pham Contact instructor or department for details.	Seats (Total: 5)

MUSC811 **Doctoral Opera Techniques**

(Perm req)

Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC611 or MUSC811.

Techniques for opera performance: Improvisation; Acting I, Scene Study I; and Movement I. Practical application of styles, techniques to operat e repertoire, and methodology seminar.

0101	Steven Bailey, Corinne Hayes	Seats (Total: 5)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC813 **Doctoral Opera Techniques III**

(Perm req)

Prerequisite: MUSC812; and permission of ARHU-School of Music department. Credit only granted for: MUSC613 and MUSC813.

Continuation of MUSC812. Techniques for opera performance: Scene Study III; Movement III; Acting III Shakespeare; Dance I; Stage Combat II; Stage Combat II; and methodology seminar.

0101	Corinne Hayes, Steven Bailey	Seats (Total: 5)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC830S **Doctoral Seminar in Music Literature**

(Perm req)

Prerequisite: Must have completed at least twelve hours in music history and literature.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music; required of all candidates for the D.M.A. Degree in literature-performance.

0101	Kenneth Slowik	Seats (Total: 10)
	M 9:00am - 12:00pm	PAC 2126

MUSC830W **Doctoral Seminar in Music Literature**

(Perm req)

Prerequisite: Must have completed at least twelve hours in music history and literature.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music; required of all candidates for the D.M.A. Degree in literature-performance.

0101	Sarah Frisof	Seats (Total: 10)
	Contact instructor or department for details.	

0201	Mark Hill Contact instructor or department for details.	Seats (Total: 10)
0301	Robert DiLutis Contact instructor or department for details.	Seats (Total: 10)
0401	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
0501	Tim Powell Contact instructor or department for details.	Seats (Total: 10)
0601	Gregory Miller Contact instructor or department for details.	Seats (Total: 10)
0701	Paul Gekker Contact instructor or department for details.	Seats (Total: 10)
0801	Matthew Guilford Contact instructor or department for details.	Seats (Total: 10)
0901	Aaron Goldman Contact instructor or department for details.	Seats (Total: 10)
1001	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
1101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
1201	Joseph Grimmer Contact instructor or department for details.	Seats (Total: 5)
1301	Justin Drew Contact instructor or department for details.	Seats (Total: 5)

MUSC832A **Doctoral Seminar in Music Literature**

(Perm req)

Prerequisite: MUSC831. Restriction: Permission of ARHU-School of Music department.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music.

0101	Rita Sloan	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

MUSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

NACS Neuroscience & Cognitive Science Fall 2023

NACS608 **Neuroscience and Cognitive Science Seminar**

Special seminar topics in Neuroscience and Cognitive Science.

0101	Matthew Roesch	Seats (Total: 20)
	F 10:15am - 11:15am	BRB 1103

NACS640 **Foundational Readings Seminar**

(Perm req)

Restriction: Permission of instructor; and must be in Neurosciences and Cognitive Sciences (Doctoral) program. Credit only granted for: NACS640 or NACS728R. Formerly: NACS728R.

An introduction to the breadth of research in Neuroscience and Cognitive Science. Faculty will present papers to provide historical context and introduction to important issues in the fields of their research.

0101	Rodolphe Gentili	Seats (Total: 12)
	M 11:00am - 1:00pm	CHE 2116

NACS641 **Introduction to Neurosciences**

(Perm req)

Restriction: Permission of instructor.

Detailed examination of neurophysiology and sensorimotor systems.

0101	Jens Herberholz	Seats (Total: 15)
	MW 2:00pm - 3:45pm	JMP 1109

NACS728F **Selected Topics in Neuroscience and Cognitive Science; Introduction to Functional Magnetic Resonance Imaging**

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

0101	Luiz Pessoa TuTh 11:00am - 12:15pm	Seats (Total: 5) CHE 2136

NACS798 **Master's Non-Thesis Research**

Individual research course for NACS non-thesis MS degree

Contact department for information to register for this course.

NACS799 **Master's Thesis Research**

Individualized research course for NACS thesis MS degree

Contact department for information to register for this course.

NACS898 **Pre-Candidacy Research**
Contact department for information to register for this course.

NACS899 **Doctoral Dissertation Research**

(Perm req)

Indivdual instruction course: contact department or instructor to obtain section number

Contact department for information to register for this course.

NAVY Navy Fall 2023

NAVY100 **Introduction to Naval Science**

Introduction to the naval profession and concepts of sea power. Major topics explored are the mission, strategy, organization, and descriptions of the U.S. Navy and Marine Corps. Students will gain a basic understanding of warfighting capabilities, required leadership skills, training and education, and the duties and responsibilities of a U.S. Navy and Marine Corps Junior Officer. The student will learn Naval courtesy and customs, military justice, and nomenclature as well as the professional competencies required to become a naval officer.

0101	GABRIELLA ROSELLE MW 8:00am - 9:15am	Seats (Total: 75) TMH 0301
FC01	GABRIELLA ROSELLE MW 8:00am - 9:15am *Restricted to students in Freshmen Connection.*	Seats (Total: 10) ARM 0120

NAVY108 **Naval Science Leadership Lab**

Introduces the student to a variety of instructional sessions and/or activities that will develop the leadership component of the Naval ROTC program. The Naval Science leadership lab may include, but not be limited to, close-order drill, physical fitness training, ceremonial functions, Department of the Navy policy, guest lecturers, general military training (GMT), Anti-Terrorism Force Protection (ATFP), traffic safety, nutrition, stress management, prevention of sexual harassment, and operations security.

0101	John Howrey, Jenna Weiner TuTh 7:00am - 7:50am	Seats (Total: 130) TMH 0301
FC01	John Howrey, Jenna Weiner TuTh 7:00am - 7:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 10) TMH 0301

NAVY200 **Leadership and Management**

(Perm req)

Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the NROTC program.

Introductory course designed to familiarize students with the theories, processes, and behaviors that enable effective leadership and managerial competence. Students will engage in analytical discussions, review leadership development and education, and Navy/Marine Corps-based case study discussions in order to develop their understanding of personal strengths, values and growth opportunities in the context of team, group and organizational leadership.

0101	Stephen Kosloski, Christopher Boehm TuTh 8:00am - 9:15am	Seats (Total: 40) ESJ 1309

NAVY300 **Naval Ship Systems I (Engineering)**

(Perm req)

Recommended: MATH140 and MATH141. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the NROTC program.

Introduces the student to a comprehensive fundamental understanding of United States naval engineering principles and systems. Topics include thermodynamics, incompressible fluid flow, electrical theory, hydraulics and pneumatics, power train components, fluid/lube oil systems, desalination, fundamentals of nuclear power, propulsion systems (internal combustion, gas turbines, and steam), electrical distribution, ship stability and control and damage control. Students will also examine case studies to apply and analyze course topics within naval ships systems contexts.

0101	Tighe Bailey MW 8:00am - 9:15am	Seats (Total: 25) ARM 0120

NAVY400 **Naval Operations and Seamanship**

(Perm req)

Recommended: NAVY201. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the NROTC program.

Capstone course for senior NROTC Navy-option midshipmen in advanced navigation, communications, naval operations, and naval warfare. Students learn through simulation in a computer classroom known as the Maritime Skills Simulator (MSS), in addition to lectures, discussions, and qualitative and quantitative tests/examinations. Students will engage in discussions regarding the moral and ethical responsibilities or military leaders, as well as the essential attributes of character required for effective leadership.

0101	GABRIELLA ROSELLE TuTh 8:00am - 9:15am	Seats (Total: 30) ARM 0120

NEUR Neuroscience Fall 2023

NEUR200 **Introduction to Neuroscience**

Prerequisite: Minimum grade of C- in BSCI170 and BSCI171. Cross-listed with: PSYC202. Credit only granted for: PSYC309U, NEUR200, PSYC202 or PSYC301. Formerly: PSYC309U.

In an evolutionary sense, the job of the nervous system is to produce, control, and coordinate behaviors that help an animal survive and reproduce. Neuroscience is the study of how the nervous system does that. Provides a broad introduction to neuroscience, always keeping the behavioral consequences in view.

0101	Ana Navarro Cebrian TuTh 12:30pm - 1:45pm	Seats (Total: 100) BPS 1243
0201	Ana Navarro Cebrian TuTh 2:00pm - 3:15pm	Seats (Total: 100) BPS 1243

NEUR305 **Neural Systems and Circuits**

Prerequisite: Minimum grade of C- in MATH120 or higher MATH course; and a minimum grade of C- in NEUR200 or BSCI353; or equivalent.

Overview of the fundamental principles underlying the systems and circuits of the human nervous system, with a focus on cognitive processes and how these systems interact. Students will engage in the analysis of case studies, apply their knowledge of the neural circuitry to explain everyday phenomena, hypothesize ways to further investigate the nervous system, and propose how knowledge of neural circuits can be used in human society and the resulting implications.

0101	Amanda Chicoli MWF 1:00pm - 1:50pm	Seats (Total: 75) ESJ 2212

NEUR306 **Cellular and Molecular Neuroscience**

Prerequisite: Earning C- or higher in NEUR200 or BSCI330. Corequisite: Must have completed or be concurrently enrolled in PHYS132 or equivalent course. Cross-listed with: BSCI353. Credit only granted for: NEUR306 or BSCI353.

Students will gain an appreciation of neuroscience as the nexus of chemistry, physics, and biology. Additionally, they will gain an understanding of how: both individual and networks of neurons function as variable electrical circuits; our nervous systems transduce signals from the outside world and sets-off molecular cascades; the behavior of a neuron can be changed and or remain the same in response to changing variables. Techniques used to study the nervous system at a cellular and molecular level will be discussed.

0101	Chan Lin MWF 9:00am - 9:50am	Seats (Total: 50) BPS 1250
0102	Melissa Caras TuTh 12:30pm - 1:45pm	Seats (Total: 50) PLS 1140

NEUR329 **Instructional Assistance Practicum**

(Perm req)

Students serve as instructional assistants in selected undergraduate neuroscience courses. Roles and responsibilities and pre/co-requisites are determined on a course- specific basis and approved by the Program Curriculum Committee.

Repeatable to 9 credits. Additional information: Course not acceptable toward major requirements in the Neuroscience. Students serve as instructional assistants in selected undergraduate neuroscience courses. Roles and responsibilities and pre/co-requisites are determined on a course- specific basis and approved by the Program Curriculum Committee.

Contact department for information to register for this course.

NEUR379 **Special Topics: Research in Neuroscience**

(Perm req)

Research and/or integrated reading in a topic related to neuroscience, under the direction and close supervision of a member of the University of Maryland faculty.

Recommended: At least a 3.0 neuroscience track GPA and no records of academic misconduct. Restriction: Permission of Neuroscience Program. Repeatable to 12 credits. Research and/or integrated reading in a topic related to neuroscience, under the direction and close supervision of a member of the University of Maryland faculty.

Contact department for information to register for this course.

NEUR379H **Special Topics: Research in Neuroscience**

(Perm req)

Research and/or integrated reading in a topic related to neuroscience, under the direction and close supervision of a member of the University of Maryland faculty.

Contact department for information to register for this course.

NEUR398H **Neuroscience Honors Seminar**

(Perm req)

This seminar provides an opportunity for the honors students to share their research projects and sharpen their communication skills through presentations, discussions, and peer-review thesis writing. Guest speakers will be invited to provide additional information and insights into various topics in professional development practice, graduate school info and application, etc.

Prerequisite: NEUR200. Corequisite: NEUR379, NEUR479, or equivalent research credit with instructor permission.Restriction: Permission of department. Repeatable to 4 credits. This seminar provides an opportunity for the honors students to share their research projects and sharpen their communication skills through presentations, discussions, and peer-review thesis writing. Guest speakers will be invited to provide additional information and insights into various topics in professional development practice, graduate school info and application, etc.

0101	Nikolas Francis Tu 3:30pm - 4:20pm	Seats (Total: 15) BPS 1208	

NEUR405 **Neuroscience Laboratory**

Prerequisite: NEUR306 or BSCI353; and PHYS132. Recommended: NEUR305. Cross-listed with: BSCI455. Credit only granted for: PSYC401, NEUR405, BSCI455 or BSCI454.

Students will utilize neurophysiological techniques to examine fundamental principles of neurons and neural circuits. This course will reinforce content from prerequisite NEUR courses. Students will also strengthen skills in experimental design and scientific writing.

Students must pay a $40 laboratory materials fee.

0101	Hilary Bierman F 10:00am - 11:50am Th 2:00pm - 6:00pm	Seats (Total: 20) ESJ 1215 BPS 0257	 Lab
0102	Hilary Bierman F 10:00am - 11:50am Tu 2:00pm - 6:00pm	Seats (Total: 20) ESJ 1215 BPS 0257	 Lab
0103	Hilary Bierman F 10:00am - 11:50am W 1:00pm - 5:00pm	Seats (Total: 20) ESJ 1215 BPS 0257	 Lab

NEUR479 **Advanced Research in Neuroscience**

(Perm req)

Research and/or integrated reading in neuroscience under the direction and close supervision of a faculty member.

Prerequisite: Complete at least 3 credits of NEUR379 (or equivalent) with the same faculty member as NEUR479 credit. Recommended: Minimum neuroscience track GPA of 3.0. Restriction: Permission of the Neuroscience Program. Repeatable to 12 credits. Research and/or integrated reading in neuroscience under the direction and close supervision of a faculty member.

Contact department for information to register for this course.

NEUR479H **Advanced Research in Neuroscience**

(Perm req)

Research and/or integrated reading in neuroscience under the direction and close supervision of a faculty member.

Contact department for information to register for this course.

NFSC Nutrition and Food Science Fall 2023

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available.

NFSC100 **Elements of Nutrition**

Fundamentals of human nutrition. Nutrient requirements related to changing individual and family needs.

0101	Hee-Jung Song MW 11:00am - 11:50am Th 8:30am - 9:20am	Seats (Total: 25) BRB 1101 KEY 0123	Discussion
0103	Hee-Jung Song MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 25) BRB 1101 KEY 0103	Discussion
0104	Hee-Jung Song MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 25) BRB 1101 SYM 0215	Discussion
0105	Hee-Jung Song MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) BRB 1101 TWS 0207	Discussion
0106	Hee-Jung Song MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) BRB 1101 TWS 0207	Discussion

0107	Hee-Jung Song MW 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 25) BRB 1101 HJP 2217	Discussion
0108	Hee-Jung Song MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 25) BRB 1101 SQH 1117	Discussion
0109	Hee-Jung Song MW 11:00am - 11:50am Tu 2:00pm - 2:50pm	Seats (Total: 25) BRB 1101 HBK 0109	Discussion
0112	Hee-Jung Song MW 11:00am - 11:50am W 3:00pm - 3:50pm	Seats (Total: 25) BRB 1101 SKN 1115	Discussion
0113	Hee-Jung Song MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 25) BRB 1101 KEY 0123	Discussion
0114	Hee-Jung Song MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 25) BRB 1101 TLF 0103	Discussion
0115	Hee-Jung Song MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) BRB 1101 MMH 1304	Discussion
FC01	Seong-Ho Lee, Hee-Jung Song, Nadine Sahyoun, Shaik Rahaman MW 4:30pm - 5:20pm F 11:30am - 12:20pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) PLS 1140 KEY 0116	Discussion
FC02	Nadine Sahyoun, Seong-Ho Lee, Hee-Jung Song, Shaik Rahaman MW 4:30pm - 5:20pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) PLS 1140 TYD 0101	Discussion

NFSC100H Elements of Nutrition

Fundamentals of human nutrition. Nutrient requirements related to changing individual and family needs.

For general honors students only.

0101	Hee-Jung Song MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 12) BRB 1101 ASY 3219	Discussion
	01/11/2023 (2308) Suzanne May need to share room for both NFSC100 0103 and NFSC100H 0101 discussions if enrollment is lower than expected for the H-version.		

NFSC112 **Food: Science and Technology**

Introduction to the realm of food science, food technology and food processing. An overview of the largest industry in the U.S. with emphasis on the science of food and the technology of food preservation from harvest through processing and packaging to distribution and consumer utilization.

0101	Qin Wang, Abani Pradhan Class time/details on ELMs Th 12:30pm - 1:20pm	Seats (Total: 30) ONLINE JMZ 2206	Discussion
0102	Abani Pradhan, Qin Wang Class time/details on ELMs Th 4:00pm - 4:50pm	Seats (Total: 30) ONLINE JMZ 0103	Discussion
0103	Qin Wang, Abani Pradhan Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 30) ONLINE KEY 0126	Discussion
0104	Qin Wang, Abani Pradhan Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 30) ONLINE KEY 0121	Discussion
0105	Qin Wang, Abani Pradhan Class time/details on ELMs W 2:00pm - 2:50pm	Seats (Total: 30) ONLINE ASY 2309	Discussion
0106	Abani Pradhan, Qin Wang Class time/details on ELMs W 3:00pm - 3:50pm	Seats (Total: 30) ONLINE SQH 1117	Discussion

FC01	Abani Pradhan, Qin Wang	Seats (Total: 24)
	MW 3:00pm - 4:15pm	KEY 0102
	Restricted to students in Freshmen Connection.	

NFSC220 **Diet: Is it a cause or a solution**

If diet is such a straightforward topic, then why and how does this simple matter result in complicated health problems? This course delves deeply into a Big Question at the intersection of diet and health. Diet is a topic that most people know but few people understand. In addition, diet has become one of the most important lenses for looking at a variety of social, economic, and cultural issues. Since the concept of diet is a continuum and has multifaceted aspects, we need to understand it from broad and multidisciplinary perspectives including social, cultural, and economic aspects.

0101	Kathleen Pellechia	Seats (Total: 60)
	MWF 12:00pm - 12:50pm	SQH 1119

NFSC298 **Sports Nutrition Internship Practicum**

This internship allows students to gain hands on experience working in collegiate athletics. Students interact with an interdisciplinary team including registered dietitians, coaches, trainers, physicians and others to develop and enhance nutrition-related knowledge and skills. They also gain invaluable experience and exposure to the day-to-day duties of a collegiate sports dietitian. Students participate in a weekly 50-minute discussion that is held by two sports nutrition dietitians, and complete 9 hours per week hands on activities at Gossett Football Team House, Xfinity Center, and Varsity Team House.

0101	Paula Karamihas, Colleen Carrion	Seats (Total: 16)
	W 12:00pm - 12:50pm	Location: TBA

NFSC350 **Foodservice Operations**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI223 and BMGT364. Restriction: Must be in Nutrition and Food Science: Dietetics program.

Introduction to management. Responsibilities in quantity food production and purchasing in a foodservice operation. Laboratory experience in planning, preparation, and service of meals which meet the nutritional needs of the consumer.

0101	Margaret Udahogora	Seats (Total: 9)	
	TuTh 4:00pm - 5:15pm	MMH 3112	
	Tu 8:00am - 1:30pm	MMH 3401	Lab
	Alternating face-to-face/online class meeting. Please see instructor fo details.		

0102	Margaret Udahogora TuTh 4:00pm - 5:15pm Th 8:00am - 1:30pm	Seats (Total: 9) MMH 3112 MMH 3401	 Lab
	Alternating face-to-face/online class meeting. Please see instructor fo details.		
0103	Margaret Udahogora TuTh 4:00pm - 5:15pm Tu 8:00am - 1:30pm	Seats (Total: 9) MMH 3112 MMH 3401	 Lab
	Alternating face-to-face/online class meeting. Please see instructor fo details.		
0104	Margaret Udahogora TuTh 4:00pm - 5:15pm Th 8:00am - 1:30pm	Seats (Total: 9) MMH 3112 MMH 3401	 Lab
	Alternating face-to-face/online class meeting. Please see instructor fo details.		

NFSC380 **Methods of Nutritional Assessment**

(Perm req)

Prerequisite: Minimum of C- in NFSC315 and BCHM461. Restriction: Must be in Nutrition and Food Science: Food Science program.

Methods of assessing human nutritional status of populations and individuals. These methods include dietary, anthropometric, clinical evaluations and biochemical measurements.

0101	Margaret Udahogora MW 1:00pm - 1:50pm M 2:00pm - 5:00pm	Seats (Total: 15) KEY 0126 SKN 0101	 Lab
0102	Margaret Udahogora MW 1:00pm - 1:50pm W 2:00pm - 5:00pm	Seats (Total: 15) KEY 0126 SKN 0101	 Lab

NFSC386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of AGNR-Nutrition and Food Science department. Restriction: Junior standing or higher. Formerly: FDSC386 and NUTR386.

Contact department for information to register for this course.

NFSC388 **Honors Thesis Research**

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

1301	Qin Wang	Seats (Total: 10)	
	Class time/details on ELMs	ONLINE	

NFSC399 **Special Problems in Food Science**

(Perm req)

Designed for advanced undergraduates. Specific problems in food science will be assigned.

Contact department for information to register for this course.

NFSC421 **Food Chemistry**

Prerequisite: BCHM461.

Basic chemical and physical concepts are applied to the composition and properties of foods. Emphasis on the relationship of processing technology to the keeping quality, nutritional value, and acceptability of foods.

0101	Liangli Yu	Seats (Total: 30)	
	MW 12:30pm - 1:45pm	KEY 0116	

NFSC422 **Food Product Research and Development**

(Perm req)

Restriction: Senior standing; and must be in a major within AGNR-Nutrition and Food Science department; and permission of AGNR-Nutrition and Food Science department. Formerly: FDSC422.

A capstone course for FDSC majors. A study of the research and development of new food products. Application of food technology, engineering, safety and packaging are integrated by teams of students to develop a new food product from concept to pilot plant scale-up. Students will travel to nearby food processing plants on two to four Saturdays during the semester.

0101	Qin Wang	Seats (Total: 15)	
	W 2:00pm - 2:50pm	JMZ 1103	
	F 1:00pm - 5:00pm	MMH 3401	Lab

NFSC423 **Food Chemistry Laboratory**

Prerequisite: Must have completed or be concurrently enrolled in NFSC421.

Analysis of the major and minor constituents of food using chemical, physical and instrumental methods in concordance with current food industry and regulatory practices. Laboratory exercises coincide with lecture subjects in NFSC421.

0101	Diana Obanda	Seats (Total: 15)	
	W 8:30am - 9:20am	MMH 3112	
	W 9:30am - 12:20pm	MMH 3419	Lab

NFSC426 **Current Topics in Nutrition and Chronic Disease**

Jointly offered with: NFSC621. Credit only granted for: NFSC498F, NFSC426, NFSC678F, or NFSC621. Formerly: NFSC498F.

Analysis of current topics related to diet, nutrition, and human health at cellular, molecular and biochemical level. Further, this course will provide overview of the current methods, and in vitro and in vivo model systems used in nutrition research. Syllabus includes topics relevant to dietary regulation of genes/proteins and their impact on both physiological and pathological conditions including hyperlipidemia, hyperglycemia, fibrosis, food allergy, nutraceuticals, inflammatory diseases (IBD), cardiovascular diseases (atherosclerosis and stenosis), and oncogenesis. This course is designed to help students to understand and apply current scientific concepts and research methods, and to obtain necessary skills in evaluation and interpretation of evidence based scientific data.

0101	Shaik Rahaman	Seats (Total: 20)
	M 2:15pm - 5:00pm	TYD 2111

NFSC440 **Advanced Human Nutrition**

(Perm req)

Prerequisite: Minimum of C- in NFSC100, BCHM462 and BSCI440.

A critical study of physiologic, molecular and metabolic influences on utilization of carbohydrates, lipids, proteins, vitamins, macro-and micro- minerals, and nonnutritive components of food. Interactions of these nutrients and food components will be examined relative to maintaining health.

Jointly offered with NFSC678R.

0101	David Lei	Seats (Total: 49)
	TuTh 2:00pm - 3:40pm	ONLINE

NFSC455 **Medical Nutrition Therapy I**

Prerequisite: NFSC380. Corequisite: NFSC440.

Advanced clinical nutrition course for dietetics or nutrition science majors. Modifications of the normal adequate diet to meet human nutritional needs in acute and chronic diseases and metabolic disorders. Includes energy balance and weight management, nutritional genomics, nutrition counseling, autoimmune disease, nutrition for pediatric conditions.

0101	Anyea Lovette	Seats (Total: 30)	
	MWF 10:00am - 10:50am	TYD 0101	
	W 2:00pm - 3:50pm	PHY 1201	Lab

NFSC490 **Special Problems in Nutrition**

(Perm req)

Prerequisite: NFSC440; and permission of AGNR-Nutrition and Food Science department.

Individually selected problems in the area of human nutrition.

Contact department for information to register for this course.

NFSC498 **Selected Topics**

(Perm req)

Selected current aspects of food.

Contact department for information to register for this course.

NFSC498A **Selected Topics; Individual Study**

(Perm req)

Selected current aspects of food.

Contact department for information to register for this course.

NFSC498C **Selected Topics; Cheese and Fermented Dairy Products**

Selected current aspects of food.

Prerequisites: AGST130; CHEM271/272; or by permission. Students will learn the basic knowledge on the general composition of milk, the characteristics of its various components, microbiology of different cheeses and other major fermented dairy products and the process of fermentation and the unit operations used in their productionare covered. Selection and evaluation of raw materials and fermentation starter cultures and agents are covered. The fermentation process of various cheese types, cultured milk, sour cream, yogurt and kefir are also studied.

0101	Behrouz Meyssami	Seats (Total: 15)
	Tu 2:30pm - 5:15pm	SKN 0101

NFSC498K **Selected Topics; Gut Microbiota Health and Metabolic Disease**

Selected current aspects of food.

Analysis of topics related to gut microbiota health, diet and nutrition. An introduction to the gut microbiota and its acquisition; How the microbiome is studied; Techniques for analyzing microbiome data; Gut microbiome changes in obesity and associated comorbidities: liver disease, insulin resistance and diabetes; Links between the microbiota, intestinal immune system and adipose tissue immune system; Effects of diet on the gut microbiota; Potential of the gut microbiome in treating obesity and related diseases.

0101	Diana Obanda	Seats (Total: 15)
	W 3:00pm - 5:45pm	MMH 3112

NFSC498T **Selected Topics; Advanced Food Processing and Safety**

Selected current aspects of food.

0101	Rohan Tikekar	Seats (Total: 10)
	Th 3:00pm - 5:30pm	PLS 1111

NFSC620 **Diet and Cancer Prevention**

Prerequisite: NFSC440; or permission of instructor. Credit only granted for: NFSC620 or NFSC679D. Formerly: NFSC678D.

1. The nature of cancer and the relationship between dietary/nutritional factors and incidence of cancer 2. Basic concepts of general cancer biology with focus on effects of dietary components on genes and their encoded proteins, epigenetic changes and cell signaling 3. Effect of dietary factors in various types of cancer with respect to the benefit of intervention strategies for chemoprevention 4. Scientific knowledge, critical thinking, and the practical application of diet in cancer prevention.

0101	Seong-Ho Lee	Seats (Total: 15)
	Tu 4:00pm - 6:45pm	KEY 0117

NFSC621 **Advanced Current Topics in Nutrition and Chronic Disease**

Jointly offered with: NFSC426. Credit only granted for: NFSC498F, NFSC426, NFSC678F, or NFSC621. Formerly: NFSC678M.

Analysis of current topics related to diet, nutrition, and human health at cellular, molecular and biochemical level. Further, this course will provide overview of the current methods, and in vitro and in vivo model systems used in nutrition research. Syllabus includes topics relevant to dietary regulation of genes/proteins and their impact on both physiological and pathological conditions including hyperlipidemia, hyperglycemia, fibrosis, food allergy, nutraceuticals, inflammatory diseases (IBD), cardiovascular diseases (atherosclerosis and stenosis), and oncogenesis. This course is designed to help students to understand and apply current scientific concepts and research methods, and to obtain necessary skills in evaluation and interpretation of evidence based scientific data.

0101	Shaik Rahaman	Seats (Total: 20)
	M 2:15pm - 5:00pm	TYD 2111

NFSC624 **Advanced Research Design and Methods in Nutrition Education**

Prerequisite: One statistics course; or permission by the instructor. Credit only granted for: NFSC678V, NFSC498V, or NFSC624. Formerly: NFSC678V.

Health promotion and nutrition education are parts of behavioral and social science that can be used to promote health and prevent diet-related diseases. Their purpose is to positively influence the health-related behaviors of individuals, communities, surrounding environments, and policies. The major goals of this course are to help students understand fundamental behavioral and social models and theories used in the field of community nutrition and to address methodological issues in developing, implementing, and evaluating nutrition education programs.

0101	Hee-Jung Song	Seats (Total: 15)
	F 2:00pm - 4:45pm	ONLINE

NFSC678A **Selected Topics in Nutrition**

Individual or group study in an area of nutrition.

Contact department for information to register for this course.

NFSC678K **Selected Topics in Nutrition; Gut Microbiota Health and Metabolic Disease**

Individual or group study in an area of nutrition.

Analysis of topics related to gut microbiota health, diet and nutrition. An introduction to the gut microbiota and its acquisition; How the microbiome is studied; Techniques for analyzing microbiome data; Gut microbiome changes in obesity and associated comorbidities: liver disease, insulin resistance and diabetes; Links between the microbiota, intestinal immune system and adipose tissue immune system; Effects of diet on the gut microbiota; Potential of the gut microbiome in treating obesity and related diseases.

0101	Diana Obanda W 3:00pm - 5:45pm	Seats (Total: 15) MMH 3112

NFSC678P **Selected Topics in Nutrition; Precision Nutrition and Human Health**

Individual or group study in an area of nutrition.

0101	Yuanyuan Li Th 4:00pm - 6:45pm	Seats (Total: 10) SKN 0101

NFSC678R **Selected Topics in Nutrition; Advanced Human Nutrition**

(Perm req)

Individual or group study in an area of nutrition.

Jointly offered with NFSC440. Prerequisites: NFSC100, BCHM462, BSCI440, and permission of department.

0101	David Lei TuTh 2:00pm - 3:40pm	Seats (Total: 49) ONLINE

NFSC679J **Selected Topics in Food Science; Nutraceuticals and Functional Foods**

Individual or group study in an area of food science.

0101	Liangli Yu Th 12:30pm - 3:15pm	Seats (Total: 10) ONLINE

NFSC679R **Selected Topics in Food Science; Food Safety and Nutrition Risk Assessment**

Individual or group study in an area of food science.

0101	Abani Pradhan	Seats (Total: 15)	
	M 1:00pm - 2:40pm	MMH 3112	
	F 11:00am - 1:30pm	MMH 3112	Lab

NFSC679T **Selected Topics in Food Science; Advanced Food Processing and Safety**

Individual or group study in an area of food science.

0101	Rohan Tikekar	Seats (Total: 10)	
	Th 3:00pm - 5:30pm	PLS 1111	

NFSC688 **Seminar in Nutrition and Food Science**

This is a seminar course presentedy by NFSC graduate students and invited speakers in the field of nutrition and food science.

0101	David Lei	Seats (Total: 25)	
	W 12:00pm - 12:50pm	ONLINE	

NFSC690 **Nutrition and Aging**

Prerequisite: NFSC440 or BSCI440; or students who have taken courses with comparable content may contact the department.

Examine the physiological, social and psychological changes that may occur with aging and their impact on nutritional status and on successful aging.

0101	Nadine Sahyoun	Seats (Total: 15)	
	F 10:00am - 12:45pm	Location: TBA	

NFSC699 **Problems in Nutrition and Food Science**

(Perm req)

Credit according to time scheduled and magnitude of problem. An experimental program on a topic other than the student's thesis problem will be conducted. Four credits shall be the maximum allowed toward an advanced degree.

Contact department for information to register for this course.

NFSC799 **Master's Thesis Research**

First and second semesters. Credit in proportion to work done and results accomplished. Investigation in some phases of foodservice administration which may form the basis of a thesis. results in the form of a thesis.

Contact department for information to register for this course.

NFSC898 **Pre-Candidacy Research**

First and second semesters. Oral reports on special topics or recently published research in nutrition. Distinguished scientists are invited as guest lecturers. A maximum of three credits allowed for the M.S.

Contact department for information to register for this course.

NFSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

NIAS National Institute of Aeronautics - North Carolina Fall 2023

NIAS788T **Advanced Topics; Heat Transfer Theory and Applications**
Contact department for information to register for this course.

NIAS788W **Advanced Topics; Wing Theory**

(Perm req)

TV01	Instructor: TBA	Seats (Total: 1)
	Contact instructor or department for details.	

PEER Health Center Fall 2023

PEER312 **Peer Education: Preventing Power-Based Violence**

(Perm req)

Prerequisite: Students must complete an interview before enrolling in this course. Restriction: Permission of instructor; and minimum cumulative GPA of 2.5. Credit only granted for: HLTH382 or PEER312. Formerly: HLTH382. Additional information: Students are required to attend a 40-hour training the week before classes begin which will equip them with the information and tools necessary to provide outreach as early as the first week of the Fall classes. Some evening and weekend hours may be required.

Designed to train students to become Peer Educators who are responsible for presenting to members of the campus community about the complex dynamics surrounding issues of power-based personal violence. This includes: sexual assault, relationship violence, stalking, bystander intervention, consent, and rape culture. Students fully learn the on and off-campus resources for victim/survivors. Programming is done in classroom settings, residence halls, Greek life spaces, and at tables during special events.

0101	Laura Widener	Seats (Total: 15)
	MW 4:00pm - 5:15pm	JMZ 1122
	Contact instructor or department for details.	

PEER318 **CARE Peer Advocacy**

(Perm req)

Designed to train students to become Peer Advocates who are responsible for providing crisis and short-term support services for victims of sexual assault, relationship violence, stalking, sexual harassment and child abuse.Students will be meeting with clients and providing emotional support and resources (both on and off campus). During weekly classes, students will be trained in trauma-informed crisis intervention procedures that will not only help them assist clients during in- person sessions but will help them support clients via the crisis cell. Students will be expected to maintain the crisis cell (on a shared basis)throughout the semester as well as maintain 10 hours per week in the CARE office. In addition to maintaining the crisis cell and office hours, during the spring semester students will be tasked with working as a team in planning and executing a Take Back the Night event.

0101	Christina Jay	Seats (Total: 15)
	W 4:30pm - 6:00pm Contact instructor or department for details.	JMZ 0120

PEER319 **CARE to Stop Violence Outreach Peer Program**

(Perm req)

A two semester, 6-credit course designed to train students in the knowledge, values and skills to build professional relationships and become leaders in community development related to the social justice issue of sexual misconduct with emphasis on the college campus environment.

0101	Grace Boudreau	Seats (Total: 15)
	MW 4:00pm - 5:00pm Contact instructor or department for details.	JMZ 0208
	Contact department or instructor for details.	

PERS Persian Fall 2023

PERS101 **Elementary Persian I**

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be native/fluent speaker of Persian.

Introduction to the alphabet, pronunciation patterns, greetings, basic structures, and other fundamentals, with emphasis on oral and aural skills.

0101	Bahareh Jalehmahmoudi	Seats (Total: 15)
	MWF 10:00am - 10:50am Class time/details on ELMs	HJP 2114 ONLINE

PERS201 **Intermediate Persian I**

Prerequisite: PERS102; or Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be native/fluent speaker of Persian.

Development of speaking, reading, writing, listening and cultural knowledge through wide variety of activities.

0101	Bahareh Jalehmahmoudi MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 15) HJP 2114 ONLINE

PERS280 **Art Activism in Iran**

Credit only granted for: PERS289M, ARTH389O, or PERS280. Formerly: PERS298M.

Explores Iranian artists' intent and hope for change and their critical and playful strategies of making a difference through their visual or performing arts created since 1980. While exploring key concepts, contexts, and debates by examining a variety of artworks, we explore diverse and unique transgressive stories, strategies, and styles that these works present to address themes of social justice through the art. We examine how multimedia art forms (dance, theatre, cinema, painting, digital art, and music) empower Iranian artists to practice their identity and exercise their agency as these aspects intersect with race, ethnicity, class, sexuality, ability, and education in a shifting and multilayered context.

0101	Marjan Moosavi MW 2:00pm - 3:15pm	Seats (Total: 25) ONLINE

PERS283 **Iranian Cinema**

Cross-listed with: CINE283. Credit only granted for: PERS283, CINE283 or FILM298B.

Introduction to Iranian cinema, society, and culture. Taught in English.

Cross-listed with FILM298B. Credit only granted for PERS283, FILM283, or FILM298B.

0101	Marjan Moosavi MW 3:30pm - 4:45pm	Seats (Total: 30) JMZ 2206

PERS298B **Special Topics in Persian Studies; Language Ideologies and Linguistic Diversity in Iran**

Special topic to be announced when course is offered.

This course delves into the role of language in contemporary Iranian society and explores socially significant topics such as standard language ideology, language attitudes, minority language rights, and language and social identity in multilingual Iran primarily through the scholarly lens of sociolinguistics. Two years of Persian language courses (or equivalent proficiency) required. Taught in English.

0101	Ali Abasi TuTh 3:30pm - 4:45pm	Seats (Total: 25) JMZ 1224

PERS299 **Directed Study in Persian Language**

Directed study in Persian. Taught in Persian.

Contact department for information to register for this course.

PERS301 **Advanced Persian I**

Prerequisite: PERS202; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not be native/fluent speaker of Persian.

Development of speaking, reading, writing, listening and cultural knowledge through wide variety of activities, especially reading.

0101	Bahareh Jalehmahmoudi	Seats (Total: 10)
	TuTh 9:30am - 10:45am	HJP 2114

PERS311 **Persian Media**

Prerequisite: PERS301; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Examines issues, values, institutions of the contemporary Persian and Persianete world, primarily through analysis and discussion of current events as reported in the written and audiovisual press. Focus will be on increasing content knowledge as well as linguistic competency in Persian. Taught in Persian.

0101	Manizhe Galledari	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	HJP 3115

PERS371 **Introduction to Persian Literature in Translation**

Introduction to classical and modern canons of Persian literature in historical, esthetic, and social context. Taught in English.

0101	Fatemeh Keshavarz-Karamustafa	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 1224

PERS386 **Experiential Learning**

(Perm req)

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department.

Pre-professional experience in research, analysis and writing in a work setting. Project proposal approved by faculty and internship sponsor.

Contact department for information to register for this course.

PERS398Q **Special Topics in Persian Studies; Social Issues in Contemporary Iran**

(Perm req)

Special topic to be announced when course is offered. Taught in Persian.

Permission required. Taught in Persian. Blending content and advanced language acquisition, the course examines a range of issues of social significance in today's Iran from multiple perspectives. The primary focus is on developing Superior proficiency in the language and culture.

0101	Ali Abasi	Seats (Total: 10)
	Contact instructor or department for details.	

PERS398R **Special Topics in Persian Studies; Persian for Professional Purposes**

(Perm req)

Special topic to be announced when course is offered. Taught in Persian.

This advanced-level course introduces students to various genres of use in contemporary Persian both written and spoken. Analysis of various recurring rhetorical contexts as well as typified linguistic responses to such contexts constitutes the primary focus in the course. Taught in Persian.

0101	Manizhe Galledari	Seats (Total: 10)
	F 9:00am - 11:45am	HJP 3115

PERS399 **Directed Study in Persian**

(Perm req)

Directed study with faculty supervision.

Contact department for information to register for this course.

PERS399C **Directed Study in Persian; Living/Learning in Persian House**

(Perm req)

Directed study with faculty supervision.

Prerequisite: Permission of departmetn. Taught in Persian.

0101	Manizhe Galledari	Seats (Total: 5)
	Contact instructor or department for details.	

PERS498N **Special Topics in Persian Studies; Masterpieces of Persian Literature: Classical Persian Literature**

Topic and language to be announced when offered.

This course is designed to represent a holistic point of view of the vast world of Persian Literature Throughout the different literary genre. We will be focused on both Verse and Prose from the classical text starting from the 11th century and will proceed by a multitude of samples in Persian literature. Taught in Persian.

0101	Mohammad Bazargan	Seats (Total: 10)
	Tu 5:00pm - 7:30pm	HJP 3115

PERS498O **Special Topics in Persian Studies; Persian Literature in Modern Iran**

Topic and language to be announced when offered.

This course facilitates the development of Persian language proficiency and domain-specific knowledge at Advanced High Level on the ACTFL scale. The course assumes a solid knowledge of the core grammatical and lexical features of the Persian Language and involves reading-based discussions and writing activities. The domain of focus is Modern Persian literature. Taught in Persian.

0101	Mohammad Bazargan W 9:00am - 11:45am	Seats (Total: 10) HJP 3115	

PERS689B **Special Topics in Persian Studies**

In-depth analysis of a particular aspect of Persian studies. In Persian.

Contact department for information to register for this course.

PHIL Philosophy Fall 2023

Click here for fuller PHIL course descriptions.

PHIL100 **Introduction to Philosophy**

An introduction to the literature, problems, and methods of philosophy either through a study of some of the main figures in philosophic thought or through an examination of some of the central and recurring problems of philosophy.

0101	Elizabeth Schechter MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 20) TWS 0320 ARC 1123	 Discussion
0102	Elizabeth Schechter MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 17) TWS 0320 JMP 1109	 Discussion
0103	Elizabeth Schechter MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 18) TWS 0320 JMP 1109	 Discussion
0104	Elizabeth Schechter MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 17) TWS 0320 HBK 0123	 Discussion
0105	Elizabeth Schechter MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 19) TWS 0320 SPH 0303	 Discussion

0106	Elizabeth Schechter MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 19) TWS 0320 SPH 0303	Discussion
FC01	Jonathan Kendrick TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ASY 3203	

PHIL140 **Contemporary Moral Issues**

The uses of philosophical analysis in thinking clearly about such widely debated moral issues as abortion, euthanasia, homosexuality, pornography, reverse discrimination, the death penalty, business ethics, sexual equality, and economic justice.

0101	Hallie Liberto MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) SPH 1312 PLS 1172	Discussion
0102	Hallie Liberto MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) SPH 1312 PLS 1117	Discussion
0103	Hallie Liberto MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 20) SPH 1312 PLS 1117	Discussion
0104	Hallie Liberto MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 18) SPH 1312 SQH 1111	Discussion
0105	Hallie Liberto MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 18) SPH 1312 KEY 0125	Discussion
0106	Hallie Liberto MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 LEF 0135	Discussion
0107	Hallie Liberto MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 18) SPH 1312 JMZ 1215	Discussion

0108	Hallie Liberto MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 JMZ 0120	Discussion
0109	Hallie Liberto MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 18) SPH 1312 SYM 0209	Discussion
FC01	Shen Pan MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 31) ASY 3203	
FC02	Lia Curtis Fine TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 28) SQH 1105	
FC03	Shen Pan MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 31) TYD 1114	
FC04	Joseph Gurrola TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 28) EDU 3315	

PHIL170 **Introduction to Symbolic Logic**

This course will introduce the basic concepts and techniques of modern symbolic logic, with an emphasis on developing skills in two areas: first, translating between ordinary language and logical notation; second, establishing the validity or invalidity of arguments using the methods of truth tables, deductions, and countermodels. Although the subject of symbolic logic was developed by mathematicians and philosophers for their own special purposes (which we will discuss), logical concepts and techniques have found applications in a variety of disciplines, including computer science, economics, law, linguistics, and psychology. We may also consider some of these applications.

0101	Paolo Santorio MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 20) TMH 0301 JMZ 0125	Discussion
0102	Paolo Santorio MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 20) TMH 0301 SQH 2113	Discussion

0103	Paolo Santorio MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 20) TMH 0301 ARC 1123	Discussion
0104	Paolo Santorio MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) TMH 0301 ARC 1125	Discussion
0105	Paolo Santorio MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 20) TMH 0301 TLF 1101	Discussion
0106	Paolo Santorio MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 20) TMH 0301 TLF 1103	Discussion

PHIL203 **The Rights and Wrongs of Killing People**

Credit only granted for: PHIL209J or PHIL203. Formerly: PHIL209J.

Virtually everyone thinks it's permissible to kill people only in special circumstances. But why is killing usually wrong? Is it ever acceptable to kill an innocent human being intentionally? This course raises these and related questions and examines cases such as terrorism, suicide, abortion, euthanasia, the death penalty, war. Except for a brief discussion of animals, all the controversies considered deal with killing and causing death to human beings.

0101	Daniel Blair MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) LEF 2205 EDU 3236	Discussion
0102	Daniel Blair MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) LEF 2205 EDU 2102	Discussion
0103	Daniel Blair MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) LEF 2205 HBK 0125	Discussion
0104	Daniel Blair MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) LEF 2205 JMP 1202	Discussion

0105	Daniel Blair MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) LEF 2205 JMP 1202	Discussion
0106	Daniel Blair MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) LEF 2205 LEF 1222	Discussion

PHIL220 **Bioethics: Regulating Right and Wrong**

Credit only granted for: PHIL209A or PHIL220. Formerly: PHIL209A.

Bioethicists formulate ethical guidelines. They answer questions such as: When life-saving health resources are scarce, who should get them? Should we increase supply of one such resource, kidneys, by buying them from living "donors"? If drug trials in developing countries benefit patients who consent to participate, are the trials ethical, even if the same research would be forbidden in the US? If a sick person aims to hasten her death, how, if at all, might her doctor permissibly help her? In this course, students construct and defend ethical rules in four domains: research ethics, allocation of scarce resources, markets in organs, and physician-assisted dying.

0101	Samuel Kerstein Class time/details on ELMs W 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 20) ONLINE SQH 1120 JMP 2202	Discussion
0102	Samuel Kerstein Class time/details on ELMs W 9:00am - 9:50am F 11:00am - 11:50am	Seats (Total: 20) ONLINE SQH 1120 JMP 2202	Discussion
0103	Samuel Kerstein Class time/details on ELMs W 9:00am - 9:50am F 1:00pm - 1:50pm	Seats (Total: 20) ONLINE SQH 1120 BPS 1232	Discussion

PHIL245 **Political and Social Philosophy I**

A critical examination of such classical political theories as those of Plato, Hobbes, Locke, Rousseau, Mill, Marx, and such contemporary theories as those of Hayek, Rawls, and recent Marxist thinkers.

0101	Antong Liu TuTh 4:00pm - 4:50pm F 10:00am - 10:50am	Seats (Total: 20) TYD 1102 HBK 1112	Discussion

0102	Antong Liu	Seats (Total: 20)		
	TuTh 4:00pm - 4:50pm F 12:00pm - 12:50pm	TYD 1102 PLS 1172	Discussion	
0103	Antong Liu	Seats (Total: 20)		
	TuTh 4:00pm - 4:50pm F 1:00pm - 1:50pm	TYD 1102 PLS 1172	Discussion	

PHIL261 **Philosophy of the Environment**

Credit only granted for: HONR218F or PHIL261. Formerly: HONR218F.

An evaluation of different kinds of arguments for the claim that the natural environment should be preserved. Perspectives cut across the disciplines of philosophy (environmental ethics and philosophies of nature); economics (cost-benefit analysis); and biology (evolution, ecology, environmental studies).

Contact department for information to register for this course.

PHIL269M **Special Topics in Study Abroad II; Moral Philosophy**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL269Y **Special Topics in Study Abroad II; Truth & Reality**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL282 **Free Will & Determinism**

A study of the main positions and arguments in the free will debate in contemporary analytic philosophy.

0101	Allen Stairs	Seats (Total: 30)		
	Class time/details on ELMs W 2:00pm - 3:15pm	ONLINE ONLINE		

PHIL309B **Philosophical Problems; (Anti-) Realism**

A focused study of a contemporary philosophical problem or issue. Topics will vary, but the course will encourage students to to generate critical analyses or proposed resolutions of issues in the contemporary philosophical literature.

0101	Georges Rey	Seats (Total: 30)		
	MW 3:00pm - 4:15pm	KEY 0100		

PHIL309K **Philosophical Problems; Political Epistemology**

A focused study of a contemporary philosophical problem or issue. Topics will vary, but the course will encourage students to to generate critical analyses or proposed resolutions of issues in the contemporary philosophical literature.

Cross-listed with PHPE308B. Credit only granted for PHIL309K or PHPE308B.

0101	Daniel Blair TuTh 3:30pm - 4:45pm	Seats (Total: 32) MTH 0306

PHIL310 **Ancient Greek and Roman Philosophy**

Prerequisite: Must have completed 6 credits in philosophy or classics.

A study of the origins and development of philosophy in ancient Greece and Rome, focusing on Socrates, Plato, Aristotle, the Epicureans, and Stoics.

Cross-listed with PHPE308Y. Credit only granted for PHIL310 or PHPE308Y.

0101	Rachel Singpurwalla TuTh 11:00am - 12:15pm	Seats (Total: 30) TYD 1118

PHIL318G **Studies in Epistemology/Metaphysics; The Philosophy in AI**

Problems, issues, and points of view in epistemology or metaphysics.

0101	Fabrizio Cariani TuTh 9:30am - 10:45am	Seats (Total: 30) LEF 1201

PHIL341 **Ethical Theory**

Prerequisite: 6 credits in PHIL courses.

A critical examination of classical and contemporary systems of ethics, such as those of Aristotle, Kant, Mill, and Rawls.

Prerequisite: 6 credit hours in philosophy.

0101	Kodie Lustig MW 9:00am - 10:15am	Seats (Total: 30) SQH 1101

PHIL344 **Philosophy of Race**

Credit only granted for: PHIL344 or PHIL308Y. Formerly: PHIL308Y.

A survey of philosophical arguments involving race and racism. Guiding questions will include: How have philosophers and scientists conceived of the concept of race? Is race a coherent concept? Does it help us explain differences in performance and behavior? What makes racism, racial prejudice, and discrimination wrong? What is the point of equality? Do we owe reparations to victims of racism?

0101	Cody Gomez Tu 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

PHIL364 **Metaphysics**

Prerequisite: 6 credits in PHIL courses. Formerly: PHIL464.

The study of some central metaphysical concepts and issues including the nature and validity of metaphysical thinking, universals, identity, substance, time, God, and reality.

0101	Harjit Bhogal	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	ATL 2330

PHIL370 **Logical Theory I: Metatheory**

Prerequisite: PHIL271 or CMSC250; or permission of the instructor.

This course is an introduction to logical "metatheory", that is, to logical reasoning about logic systems themselves. Topics include alternative alternative proof-theoretic presentations of logical systems as well as soundness and completeness theorems for propositional and first-order logic. Along the way, we will deepen our understanding of the elementary set-theoretic concepts underlying first order logic. Other topics may include basic results in the semantics of first order logic (such as the Craig interpolation theorem, the Beth definability theorem, or the Lowenhein-Skolem theorem).

0101	Ilaria Canavotto	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TYD 0111

PHIL386 **Experiential Learning**

(Perm req)

Restriction: Permission of ARHU-Philosophy department; and junior standing or higher.

Consult Director of Undergraduate Studies: C. Manekin. Prerequisites: 12 credit hours of philosophy and 3.0 GPA. Carries no credit toward philosophy major.

Contact department for information to register for this course.

PHIL408W **Topics in Contemporary Philosophy; Foundations, Paradoxes and Applications of Decision Theory**

An intensive examination of contemporary problems and issues. Source material will be selected from recent books and articles.

Cross-listed with PHPE308. Credit only granted for PHPE308 or PHIL408W.

0101	Fabrizio Cariani	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 2111

PHIL438L **Topics in Value Theory; Philosophy and Law**

An intensive examination of contemporary problems and issues in ethics, aesthetics, political philosophy and related areas. Source material will be selected from recent books and articles.

Cross-listed with PHPE408K. Credit only granted for PHIL438L or PHPE408K.

0101	Kenneth Glazer	Seats (Total: 25)
	TuTh 5:00pm - 6:15pm	KNI 1105

PHIL445 **Contemporary Political Philosophy**

Restriction: Must have completed 3 credits in philosophy or political theory; or permission of ARHU-Philosophy department. And sophomore standing or higher.

Major trends in contemporary political philosophy: liberal, libertarian, communitarian, socialist, feminist.

0101	Antong Liu	Seats (Total: 25)
	TuTh 8:00am - 9:15am	SKN 1115

PHIL453 **Philosophy of Science II**

Prerequisite: Students must have completed a minium of two philosophy courses.

A comprehensive survey of developments in the main problems of the philosophy of science from logical positivism to the present. The nature of theories, models, laws, and counterfactuals, testing, inductive logic, and confirmation theory, experimental methodology, measurement, explanation, concept formation, growth of scientific knowledge, and scientific realism.

0101	Harjit Bhogal	Seats (Total: 30)
	TuTh 9:30am - 10:45am	ONLINE

PHIL469Y **Study Abroad Special Topics IV; Philosophy of Science II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL478V **Topics in Philosophical Logic; Modal Logic**

Philosophical logics result from the application of formal techniques to problems of philosophical interest; these logics often have applications in other areas as well, such as AI, linguistics, psychology, economics, and law. This course will either concentrate on a particular family of philosophical logics (such as modal or temporal or defeasible logics) or else survey a number different logical systems.

0101	Eric Pacuit	Seats (Total: 24)
	MW 3:00pm - 4:15pm	JMZ 0122

PHIL498F **Topical Investigations; Topical Investigation**

(Perm req)

Prerequisite:Two courses in philosophy or permission of the department.

Contact department for information to register for this course.

PHIL498G **Topical Investigations; Topical Investigation**

(Perm req)

Prerequisite:Two courses in philosophy or permission of the department.

Contact department for information to register for this course.

PHIL660 **Metaphysics, Mind, and Language**

A basic course on selected issues in metaphysics, philosophy of mind, and philosophy of language for beginning graduate students, covering a number of topics in depth, to provide a springboard for further study and research in the area.

0101	Paolo Santorio	Seats (Total: 15)
	M 4:30pm - 7:00pm	SKN 1116

PHIL688F **Selected Problems in Philosophy; Trustworthy Machine Learning**

Cross-listed with CMSC848I. Credit only granted for CMSC848I or PHIL688F. Introduces concepts of trustworthiness in machine learning, drawn from computer science, systems engineering, human-computer interaction, psychology, and philosophy. Trustworthiness topics include robustness, uncertainty, fairness, transparency, values alignment, AI safety, etc.

0101	Hal Daume	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	IRB 2207

PHIL688V **Selected Problems in Philosophy; Modal Logic**

0101	Eric Pacuit	Seats (Total: 6)
	MW 3:00pm - 4:15pm	JMZ 0122

PHIL788G **Research in Philosophy; Research in Philosophy**

(Perm req)

Contact department for information to register for this course.

PHIL788I **Research in Philosophy; Research in Philosophy**

(Perm req)

Contact department for information to register for this course.

PHIL799 **Master's Thesis Research; Masters Thesis Research**

Contact department for information to register for this course.

PHIL808K **Seminar in the Problems of Philosophy**

0101	Rachel Singpurwalla	Seats (Total: 15)
	Tu 2:00pm - 4:30pm	SKN 1116

PHIL808M **Seminar in the Problems of Philosophy**

0101	Georges Rey	Seats (Total: 16)
	W 5:00pm - 7:30pm	SKN 1116

PHIL858F **Seminar in Logic and Philosophy of Sciences; Philosophical Issues**

0101	Allen Stairs	Seats (Total: 15)
	Th 1:00pm - 3:30pm	SKN 1116

PHIL888 **Professional Mentoring for Doctoral Students**

Work with a faculty advisor on various aspects of professional development.

Contact department for information to register for this course.

PHIL889 **Pedagogical Mentoring for Doctoral Students**

(Perm req)

Work with a faculty advisor to develop and improve pedagogical skills.

Contact department for information to register for this course.

PHIL898 **Pre-Candidacy Research**
Contact department for information to register for this course.

PHIL899 **Doctoral Dissertation Research; Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

PHPE Philosophy, Politics, and Economics Fall 2023

PHPE308B **Special Topics in Philosophy, Politics, and Economics; Political Epistemology**

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

Cross-listed with PHIL309K. Credit only granted for PHIL309K or PHPE308B.

0101	Daniel Blair	Seats (Total: 32)
	TuTh 3:30pm - 4:45pm	MTH 0306

PHPE308G **Special Topics in Philosophy, Politics, and Economics; The Philosophy in AI**

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

0101	Fabrizio Cariani	Seats (Total: 30)
	TuTh 9:30am - 10:45am	LEF 1201

PHPE308W **Special Topics in Philosophy, Politics, and Economics; Foundations, Paradoxes and Applications of Decision Theory**

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

0101	Fabrizio Cariani	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 2111

PHPE308Y **Special Topics in Philosophy, Politics, and Economics; Ancient Greek and Roman Philosophy**

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

Cross-listed with PHPE310. Credit only granted for PHIL310 or PHPE308Y.

0101	Rachel Singpurwalla TuTh 11:00am - 12:15pm	Seats (Total: 30) TYD 1118	

PHPE386 **Experiential Learning Practicum in Philosophy, Politics, and Economics**

(Perm req)

Restriction: Junior standing or higher.

For students who wish to gain experience working in research outside the classroom. Pending approval of the department, students may work at a professional site or remotely under professional supervision - your primary supervisor must be a professional in the field. Beyond working at a professional site or under professional supervision, students will have to complete further assignments to receive a passing grade in the course. Students may take PHPE386 for three-six credits, but only three credits will count towards the major requirements. PHPE386 is only open to those with junior standing or above.

Contact department for information to register for this course.

PHPE400 **Individual and Group Decision-Making**

Foundational issues that arise within the theories of rational choice that underlie the treatments of decision-making found in economics, politics, and the other social sciences. The course is focused on individual decisions (rational choice theory), strategic decisions (game theory) and group decisions (social choice theory). In addition to presenting the formal models of decision making, we also discuss to what extent these mathematical theories explain social interactions. An important aspect of the course is to introduce students to the ways in which economic analysis has been applied to issues in social and political philosophy. Readings will be drawn from the literature in economics, psychology, statistics and political science, as well as philosophy.

For 2023 academic year, PHPE400 is only being offered in the Fall semester. Credit only granted for PHPE400 or GVPT449D.

0101	Eric Pacuit MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 18) TWS 1100 TLF 1103	 Discussion
0102	Eric Pacuit MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 18) TWS 1100 PLS 1119	 Discussion
0103	Eric Pacuit MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 18) TWS 1100 KNI 1105	 Discussion

PHPE401 **Social Philosophy and Political Economy**

Examines capitalism and socialism as differing modes of economic production through several different theoretical lenses. We begin by examining capitalism and socialism as they developed historically, by looking primarily at the work of Adam Smith and Karl Marx. Then, we turn our attention to one of the most important debates in 20th century economics: to what extent rational economic calculation is possible in a socialist commonwealth. After this we turn our attention to how capitalist and socialist modes of production functioned in practice. We end by turning our attention to the ethics of capitalism and socialism: which mode of economic production is most just?

0101	Antong Liu	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TYD 0111

PHPE402 **Senior Capstone in Philosophy, Politics, and Economics**

Restriction: Must be in the Philosophy, Politics, and Economics major; and must have senior standing.

Senior capstone course for the Philosophy, Politics, and Economics major. The exact content of the course will be determined by the instructor who teaches it. The purpose of the course is to pursue sustained inquiry on a narrow philosophical topic, using the tools and methods from economics and political science to help analyze the topic. The course ends with a substantial research paper, where the student should demonstrate an ability to use the tools of philosophy, political science, and economics in his or her analysis.

0101	Dan Moller	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	PHY 1219

PHPE408K **Advanced Topics in Philosophy, Politics, and Economics; Philosophy and Law**

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

Cross-listed with PHIL438L. Credit only granted for PHIL438L or PHPE408K.

0101	Kenneth Glazer	Seats (Total: 25)
	TuTh 5:00pm - 6:15pm	KNI 1105

PHSC Public Health Science Fall 2023

PHSC300 **Foundations of Public Health**

Restriction: Must be a major within the School of Public Health. Credit only granted for: SPHL100 or PHSC300.

An overview of the goals, functions, and methods of public health. After an introduction to the core concepts and tools used in public health research and practice, applications of these methodologies are considered in the context of current controversies/problems in public health. Students work together to develop strategies for prevention and control that take into consideration different points of view, outside research, and impacts on individuals and communities.

ESG1	Shuling Wu	Seats (Total: 35)
	W 12:30pm - 3:00pm	ONLINE
	Restricted to Shady Grove students in the Public Health Science major.	

PHSC388C **Special Topics in Public Health Science; U.S. Law and Its Impact on Public Health**

Will differ by specific course offering.

ESG1	Elyse Grossman	Seats (Total: 35)
	Tu 5:00pm - 7:30pm	BLD3 3240
	Restricted to Shady Grove students in the Public Health Science major.	

PHSC388D **Special Topics in Public Health Science; Moving Fearlessly Forward: The Pursuit of Career Success in Public Health Science**

Will differ by specific course offering.

This course will illustrate and investigate the relationship between experiential learning and career readiness in public health. Primarily through listening to relevant podcasts, students will reflect on their skill development, think critically about industry trends, and identify best practices for success in the public health workforce. Students will bridge the gap between their current skills and their career aspirationsthrough strategic planning of curricular and co-curricular engagement. Student learning will culminate in the creation of a career roadmap- an individualized action plan to move fearlessly forward into career success.

0101	Shannon Edward	Seats (Total: 30)
	Meets August 28, 2023 - October 17, 2023	
	W 1:00pm - 1:50pm	SPH 0121
	Class time/details on ELMs	ONLINE

PHSC388E **Special Topics in Public Health Science; Peer Mentoring**

(Perm req)

Will differ by specific course offering.

Contact department for information to register for this course.

PHSC389 **Independent Research Study in Public Health Science**

(Perm req)

This independent research-based experience will provide the opportunity for students to work with individual research mentors in the area of Public Health Science. Students must identify a mentor prior to obtaining departmental permission.

0101	Shannon Edward Contact instructor or department for details. *Restricted to College Park students in the Public Health Science major.*	Seats (Total: 30)
ESG1	Shannon Edward Contact instructor or department for details. *Restricted to Shady Grove students in the Public Health Science major.*	Seats (Total: 20)

PHSC399 **Public Health Science Internship**

(Perm req)

The Public Health Science internship will enable students to gain practical experience under conditions conducive to academic, research and professional development. The internship is a time-limited, supervised period of public health professional experience carried out in a related professional organization or research setting.

0101	Shannon Edward Contact instructor or department for details. *Restricted to College Park students in the Public Health Science major.*	Seats (Total: 30)
ESG1	Shannon Edward Contact instructor or department for details. *Restricted to Shady Grove students in the Public Health Science major.*	Seats (Total: 20)

PHSC405 **Policy Advocacy and Public Health**

Prerequisite: Minimum grade of C- in HLSA300. Restriction: Must be in Public Health Science program; and must have earned a minimum of 60 credits.

Students will identify and analyze policy solutions to public health problems and determine advocacy strategies to encourage policy makers to implement the recommendations. Lectures, class discussions, group work and mock advocacy exercises will integrate the principles and practice of public health advocacy. Guest lecturers from a variety of settings will give students a broad range of perspectives and advocacy experiences.

0101	Sebastian Godoy Th 6:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 35) SPH 1301 ONLINE

PHSC412 **Food, Policy, and Public Health**

Prerequisite: Must have completed HLSA300 with a C- or higher. Recommended: NFSC100. Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC412 or SPHL412. Formerly: SPHL412.

Broad overview of the impact of food and food policy on public health. Course covers topics such as access to food, food systems, influence of food policies on the individual, the cost of food, influences on food selection, food safety risks and responses, nutrition-related health challenges, and a comparison of US food/nutrition issues with those of other nations.

0101	Christopher Waldrop W 5:00pm - 7:30pm	Seats (Total: 35) ONLINE	
	Restricted to College Park students in the Public Health Science major.		

PHSC415 **Essentials of Public Health Biology: The Cell, The Individual, and Disease**

Prerequisite: Minimum grade of C- in BSCI202. Recommended: BSCI223. Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC415, SPHL415 or SPHL498J. Formerly: SPHL415 and SPHL498J.

Presents the basic scientific and biomedical concepts of modern public health problems and explores in depth mechanisms and models of the major categories of disease. The biologic principles presented are foundations to public health disease prevention, control, or management programs.

0101	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs W 2:00pm - 2:50pm	Seats (Total: 40) SPH 1312 ONLINE SPH 1301	Discussion
0102	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs W 3:00pm - 3:50pm	Seats (Total: 40) SPH 1312 ONLINE SPH 1301	Discussion
0103	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs Th 12:30pm - 1:20pm	Seats (Total: 40) SPH 1312 ONLINE SPH 1301	Discussion
0104	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs Th 2:00pm - 2:50pm	Seats (Total: 40) SPH 1312 ONLINE SPH 1301	Discussion
0105	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs Th 3:00pm - 3:50pm	Seats (Total: 40) SPH 1312 ONLINE SPH 1301	Discussion

ESG1	Mark Scheckelhoff M 5:00pm - 7:30pm	Seats (Total: 35) BLD3 4211
	Restricted to Shady Grove students in the Public Health Science major.	

PHSC420 **Vaccines and Immunology**

Prerequisite: Minimum grade of C- in BSCI202. Recommended: CHEM231. Restriction: Must have earned a minimum of 60 credits. And must be in Public Health Science program; or permission of instructor.

An exploration of immunology and vaccines through a public health lens. We will examine the cells, systems, and molecules that comprise the human immune system and defend your body against disease. In addition, we will discuss the strategies used during vaccine development including the history and future of vaccination and how increased understanding of the immune system has allowed scientists to improve and refine the process. Finally we will examine the current social and political situation surrounding vaccination and the roles and responsibility of public health practitioners.

0101	Jennifer German TuTh 12:30pm - 1:45pm	Seats (Total: 35) BPS 1228

PHSC440 **Public Health Nutrition**

Prerequisite: A minimum of C- in BSCI170, BSCI171, CHEM131, CHEM132 and EPIB301. Restriction: Must be in Public Health Science program. Credit only granted for: PHSC440 or NFSC498L.

Engages students in conceptual thinking about the relationship between public health and nutritional health. Students will analyze and interpret "A Framework for Public Health Nutrition." Students will identify determinants of nutritional health, assess nutritional health in individuals and populations, develop strategies to mitigate these issues, and analyze and evaluate public health nutrition policies.

0101	Kendall Bustad MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 35) SPH 1301 ONLINE
	Restricted to Public Health Science at College Park.	

PHSC450 **Addressing Social and Structural Inequities Through Public Health**

Prerequisite: Minimum grade of C- in MIEH300; and 1 course with a minimum grade of C- from either SPHL100 or PHSC300.

A focus on addressing social and structural inequities within race, gender, disability, and class through various perspectives in the field of public health. Students explore the causes, challenges, consequences, and extent these injustices have on health disparities from local, national, and global perspectives. Students view these inequities through the lens of the affected populations, and work interactively and collaboratively to interpret, design, and evaluate public health interventions and approaches to address key health disparities within specific communities. The aim of this course is to help students define appropriate research and address structural inequities with innovative approaches through the professional practice of public health.

Restricted to College Park students in the Public Health Science major (12140).

0101	Kendall Bustad MW 3:00pm - 3:50pm Th 8:00am - 8:50am	Seats (Total: 20) JMZ 0220 SPH 0116B	Discussion
0102	Kendall Bustad MW 3:00pm - 3:50pm Th 9:30am - 10:20am	Seats (Total: 20) JMZ 0220 SPH 0116B	Discussion
0103	Kendall Bustad MW 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 20) JMZ 0220 SPH 0116B	Discussion
0104	Kendall Bustad MW 3:00pm - 3:50pm Th 12:30pm - 1:20pm	Seats (Total: 20) JMZ 0220 SPH 0116B	Discussion
0105	Kendall Bustad MW 3:00pm - 3:50pm Th 2:00pm - 2:50pm	Seats (Total: 20) JMZ 0220 SPH 0116B	Discussion
0106	Kendall Bustad MW 3:00pm - 3:50pm Th 4:00pm - 4:50pm	Seats (Total: 20) JMZ 0220 SPH 0116B	Discussion
0107	Kendall Bustad MW 3:00pm - 3:50pm F 10:00am - 10:50am	Seats (Total: 20) JMZ 0220 SPH 0225	Discussion
0108	Kendall Bustad MW 3:00pm - 3:50pm F 11:00am - 11:50am	Seats (Total: 20) JMZ 0220 SPH 0225	Discussion

PHSC497 Public Health Science Capstone

Prerequisite: Must have completed the professional writing requirement with a C- or higher; and minimum grade of C- in PHSC450. Restriction: Must have earned a minimum of 100 credits; and must be in Public Health Science program; and must be in the final semester of undergraduate study. Credit only granted for: SPHL498F or PHSC497. Formerly: SPHL498F.

The capstone course is the culminating experience for Public Health Science students and must be taken only in the final semester of study. The Public Health Science capstone course is designed to challenge students to integrate the five core areas of public health in investigating, researching and addressing public health issues. Throughout the semester, students will be required to evaluate, analyze and synthesize scholarly works as they research and propose solutions to a variety of public health issues. By the conclusion of this research based course, students will understand how the various public health perspectives can combine in addressing and informing public health practices.

0101	Kevin Glasz M 4:00pm - 6:30pm	Seats (Total: 20) SPH 0116B
0301	Lakeshia Watson Tu 4:00pm - 6:30pm	Seats (Total: 20) SPH 0116B
0601	Aysha Jawed W 4:00pm - 6:30pm	Seats (Total: 20) ONLINE
ESG1	Ann Truelove Th 4:30pm - 7:00pm *Restricted to Shady Grove students in the Public Health Science major.*	Seats (Total: 20) BLD3 4211

PHYS Physics Fall 2023

PHYS102 Physics of Music

Prerequisite: Must have math eligibility of MATH107 or higher. Credit only granted for: PHYS102 and PHYS499C. Additional information: CORE Distributive Studies Physical Sciences Laboratory Course only when taken concurrently with PHYS103.

A study of the physical basis of sound, acoustical properties of sound, the human ear and voice, reproduction of sound, electronic music, acoustical properties of auditoriums, and other selected topics.

0101	Matt Severson TuTh 9:30am - 10:45am	Seats (Total: 142) PHY 1410

PHYS103 Physics of Music Laboratory

Optional laboratory to accompany PHYS 102. Laboratory experiments, including the velocity of sound, sound quality and wave shape, traveling and standing waves, fourier synthesis and analysis, musical synthesizer, psychoacoustics, and audio equipment.

0101	Andris Skuja Th 11:00am - 12:50pm	Seats (Total: 24) PHY 3220	Lab
0301	Andris Skuja Th 3:30pm - 5:20pm	Seats (Total: 24) PHY 3220	Lab
0401	Andris Skuja F 10:00am - 11:50am *Recommended for First-Year students.*	Seats (Total: 24) PHY 3220	Lab
0501	Andris Skuja F 12:00pm - 1:50pm	Seats (Total: 24) PHY 3220	Lab
0701	Andris Skuja W 3:00pm - 5:00pm	Seats (Total: 24) PHY 3220	Lab
0801	Andris Skuja W 1:00pm - 2:50pm	Seats (Total: 24) PHY 3220	Lab

PHYS105 **A Global Challenge: Energy and Climate Change**

This marquee course will consider the global energy crisis from a scientific perspective. Topics include basic laws of energy and thermodynamics, their effects on energy production and distribution, greenhouse gas, global warming and policy options for decision makers. This course is aimed at the non-science major.

0101	Jordan Goodman MW 1:00pm - 1:50pm Th 10:00am - 10:50am	Seats (Total: 25) PLS 1140 PHY 1219	Discussion
0102	Jordan Goodman MW 1:00pm - 1:50pm Th 11:00am - 11:50am	Seats (Total: 25) PLS 1140 PHY 0405	Discussion
0103	Jordan Goodman MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) PLS 1140 PHY 1219	Discussion
0104	Jordan Goodman MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) PLS 1140 PHY 1402	Discussion

PHYS111 **Physics in the Modern World**

A survey course in general physics emphasizing the role that physics plays in science, technology, and society today. The course is concept oriented and minimal use of mathematics is made. Intended for the general student; does not satisfy the requirements of the professional schools.

Contact department for information to register for this course.

PHYS115 **Inquiry into Physics**

Recommended: High School Physics. Restriction: Must not have completed PHYS117; and must be in one of the following programs (Elementary Education; Early Childhood Education; Middle School Education). Credit only granted for: PHYS115 or PHYS117.

Intended for students majoring in neither the physical nor the biological sciences. Use of laboratory-based and inquiry-based methods to study some of the basic ideas of physical sciences.

0101	Laura Lising	Seats (Total: 20)	
	MWF 1:00pm - 1:50pm	PHY 3316	Lab
	MWF 2:00pm - 2:50pm	PHY 3316	Discussion
0201	Arpita Upadhyaya	Seats (Total: 20)	
	MWF 9:00am - 9:50am	PHY 3316	Lab
	MWF 10:00am - 10:50am	PHY 3316	Discussion

PHYS121 **Fundamentals of Physics I**

Prerequisite: MATH113 or MATH115. Credit only granted for: PHYS121, PHYS131, or PHYS331.

The first part of a two-semester course in general physics treating the fields of mechanics, heat, sound, electricity, magnetism, optics, and modern physics. Together with PHYS122, this generally satisfies the minimum requirement of medical and dental schools.

Physics clinic, PHY 1214, MTWHF 11,1. If purchasing used books additional software may be required. Students must pay a $50.00 laboratory materials fee.

0201	Aria Heidarian	Seats (Total: 28)	
	MWF 12:00pm - 12:50pm	PHY 1412	
	M 10:00am - 11:50am	PHY 3306	Lab
	M 9:00am - 9:50am	PHY 1219	Discussion
0202	Aria Heidarian	Seats (Total: 28)	
	MWF 12:00pm - 12:50pm	PHY 1412	
	M 2:00pm - 3:50pm	PHY 3306	Lab
	M 1:00pm - 1:50pm	PHY 0405	Discussion

0203	Aria Heidarian	Seats (Total: 28)	
	MWF 12:00pm - 12:50pm	PHY 1412	
	Tu 9:00am - 10:50am	PHY 3306	Lab
	Tu 8:00am - 8:50am	PHY 1219	Discussion
0204	Aria Heidarian	Seats (Total: 28)	
	MWF 12:00pm - 12:50pm	PHY 1412	
	Tu 3:00pm - 4:50pm	PHY 3306	Lab
	Tu 2:00pm - 2:50pm	PHY 0405	Discussion
0205	Aria Heidarian	Seats (Total: 28)	
	MWF 12:00pm - 12:50pm	PHY 1412	
	W 5:00pm - 6:50pm	PHY 3306	Lab
	W 4:00pm - 4:50pm	PHY 1219	Discussion
0206	Aria Heidarian	Seats (Total: 28)	
	MWF 12:00pm - 12:50pm	PHY 1412	
	W 3:00pm - 4:50pm	PHY 3306	Lab
	W 2:00pm - 2:50pm	PHY 0405	Discussion
0401	David Buehrle	Seats (Total: 28)	
	TuTh 6:30pm - 7:45pm	PHY 1410	
	M 8:00pm - 9:50pm	PHY 3306	Lab
	M 7:00pm - 7:50pm	PHY 1204	Discussion
0402	David Buehrle	Seats (Total: 28)	
	TuTh 6:30pm - 7:45pm	PHY 1410	
	W 8:00pm - 9:50pm	PHY 3306	Lab
	W 7:00pm - 7:50pm	PHY 1204	Discussion
0403	David Buehrle	Seats (Total: 28)	
	TuTh 6:30pm - 7:45pm	PHY 1410	
	Th 8:00pm - 9:50pm	PHY 3306	Lab
	Tu 8:00pm - 8:50pm	PHY 1204	Discussion
0405	David Buehrle	Seats (Total: 13)	
	TuTh 6:30pm - 7:45pm	PHY 1410	
	Tu 8:00pm - 9:50pm	PHY 3306	Lab
	Th 8:00pm - 8:50pm	PHY 1204	Discussion

SEF1	David Buehrle	Seats (Total: 15)	
	TuTh 6:30pm - 7:45pm	PHY 1410	
	Tu 8:00pm - 9:50pm	PHY 3306	Lab
	Th 8:00pm - 8:50pm	PHY 1204	Discussion
	Must be in the Science in the Evening (SIE) program.		

PHYS122 **Fundamentals of Physics II**

Prerequisite: PHYS121; or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS122, PHYS132, or PHYS332.

A continuation of PHYS121, which together with it, generally satisfies the minimum requirement of medical and dental schools.

Physics clinic, PHY 1214, MTWHF 12,2. If purchasing used books additional software may be required. Students must pay a $50.00 laboratory materials fee.

0101	Aria Heidarian	Seats (Total: 22)	
	MWF 1:00pm - 1:50pm	PHY 1410	
	M 4:00pm - 5:50pm	PHY 3314	Lab
	M 3:00pm - 3:50pm	PHY 1402	Discussion
0102	Aria Heidarian	Seats (Total: 22)	
	MWF 1:00pm - 1:50pm	PHY 1410	
	Tu 10:00am - 11:50am	PHY 3314	Lab
	Th 10:00am - 10:50am	PHY 1204	Discussion
0105	Aria Heidarian	Seats (Total: 22)	
	MWF 1:00pm - 1:50pm	PHY 1410	
	Tu 4:00pm - 5:50pm	PHY 3314	Lab
	Th 4:00pm - 4:50pm	PHY 1204	Discussion
0401	Aria Heidarian	Seats (Total: 15)	
	MW 6:00pm - 7:15pm	PHY 1201	
	M 7:30pm - 9:20pm	PHY 3314	Lab
	W 7:30pm - 8:20pm	PHY 0405	Discussion
0402	Aria Heidarian	Seats (Total: 24)	
	MW 6:00pm - 7:15pm	PHY 1201	
	W 7:30pm - 9:20pm	PHY 3314	Lab
	M 7:30pm - 8:20pm	PHY 1219	Discussion

SEF1	Aria Heidarian MW 6:00pm - 7:15pm M 7:30pm - 9:20pm W 7:30pm - 8:20pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 9) PHY 1201 PHY 3314 PHY 0405	 Lab Discussion

PHYS131 **Fundamentals of Physics for Life Sciences I**

Prerequisite: CHEM131; and (MATH136 or MATH140); and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Credit only granted for: PHYS121, PHYS131, or PHYS331.

The first part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic mechanics including forces and energy, properties of matter, and thermodynamics done in authentic biological contexts.

Students must pay a $50.00 laboratory materials fee.

0101	David Buehrle MWF 10:00am - 10:50am Tu 9:00am - 11:50am	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0102	David Buehrle MWF 10:00am - 10:50am Th 9:00am - 11:50am	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0103	David Buehrle MWF 10:00am - 10:50am Tu 12:00pm - 2:50pm	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0104	David Buehrle MWF 10:00am - 10:50am Th 12:00pm - 2:50pm	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0105	David Buehrle MWF 10:00am - 10:50am Tu 3:00pm - 5:50pm	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0106	David Buehrle MWF 10:00am - 10:50am Th 3:00pm - 5:50pm	Seats (Total: 24) PHY 1412 PHY 3310	 Lab

0107	David Buehrle MWF 10:00am - 10:50am M 6:00pm - 8:50pm	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0108	David Buehrle MWF 10:00am - 10:50am W 6:00pm - 8:50pm	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0201	David Buehrle TuTh 2:00pm - 3:15pm M 9:00am - 11:50am	Seats (Total: 24) BRB 1101 PHY 3310	 Lab
0202	David Buehrle TuTh 2:00pm - 3:15pm W 9:00am - 11:50am	Seats (Total: 24) BRB 1101 PHY 3310	 Lab
0203	David Buehrle TuTh 2:00pm - 3:15pm M 12:00pm - 2:50pm	Seats (Total: 24) BRB 1101 PHY 3310	 Lab
0204	David Buehrle TuTh 2:00pm - 3:15pm W 12:00pm - 2:50pm	Seats (Total: 24) BRB 1101 PHY 3310	 Lab
0205	David Buehrle TuTh 2:00pm - 3:15pm M 3:00pm - 5:50pm	Seats (Total: 24) BRB 1101 PHY 3310	 Lab
0206	David Buehrle TuTh 2:00pm - 3:15pm W 3:00pm - 5:50pm	Seats (Total: 24) BRB 1101 PHY 3310	 Lab
0207	David Buehrle TuTh 2:00pm - 3:15pm Tu 6:00pm - 8:50pm	Seats (Total: 24) BRB 1101 PHY 3310	 Lab
0208	David Buehrle TuTh 2:00pm - 3:15pm Th 6:00pm - 8:50pm	Seats (Total: 24) BRB 1101 PHY 3310	 Lab

PHYS132 Fundamentals of Physics for Life Sciences II

Prerequisite: PHYS131; or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS122, PHYS132, or PHYS332.

The second part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic statistical physics, electricity and magnetism, and optics done in authentic biological contexts.

Students must pay a $50.00 laboratory materials fee.

0101	Wolfgang Losert MWF 12:00pm - 12:50pm Tu 9:00am - 11:50am	Seats (Total: 24) ESJ 1202 PHY 3312	 Lab
0103	Wolfgang Losert MWF 12:00pm - 12:50pm Tu 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1202 PHY 3312	 Lab
0105	Wolfgang Losert MWF 12:00pm - 12:50pm M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1202 PHY 3312	 Lab
0106	Wolfgang Losert MWF 12:00pm - 12:50pm Tu 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1202 PHY 3312	 Lab
0107	Wolfgang Losert MWF 12:00pm - 12:50pm M 6:00pm - 8:50pm	Seats (Total: 24) ESJ 1202 PHY 3312	 Lab
0201	Matt Severson TuTh 12:30pm - 1:45pm M 9:00am - 11:50am	Seats (Total: 24) PHY 1412 PHY 3312	 Lab
0203	Matt Severson TuTh 12:30pm - 1:45pm M 12:00pm - 2:50pm	Seats (Total: 24) PHY 1412 PHY 3312	 Lab
0204	Matt Severson TuTh 12:30pm - 1:45pm W 12:00pm - 2:50pm	Seats (Total: 24) PHY 1412 PHY 3312	 Lab

0205	Matt Severson TuTh 12:30pm - 1:45pm W 3:00pm - 5:50pm	Seats (Total: 24) PHY 1412 PHY 3312	 Lab
0208	Matt Severson TuTh 12:30pm - 1:45pm Tu 6:00pm - 8:50pm	Seats (Total: 24) PHY 1412 PHY 3312	 Lab

PHYS161 **General Physics: Mechanics and Particle Dynamics**

Prerequisite: Must have completed or be concurrently enrolled in MATH141. Credit only granted for: PHYS141, PHYS161, or PHYS171. Additional information: General Education Natural Sciences Lab (DSNL) Course only when taken concurrently with PHYS275.

First semester of a three-semester calculus-based general physics course. Laws of motion, force, and energy; principles of mechanics, collisions, linear momentum, rotation, and gravitation.

Physics clinic, PHY 1214, MTWHF 11, 2. If purchasing used books additional software may be required.

0101	David Buehrle MWF 3:00pm - 3:50pm Tu 3:00pm - 3:50pm	Seats (Total: 32) PHY 1410 PHY 1402	 Discussion
0104	David Buehrle MWF 3:00pm - 3:50pm F 11:00am - 11:50am	Seats (Total: 32) PHY 1410 PHY 1402	 Discussion
0201	Hailu Gebremariam TuTh 11:00am - 12:15pm Th 8:00am - 8:50am	Seats (Total: 32) PHY 1410 PHY 1402	 Discussion
0202	Hailu Gebremariam TuTh 11:00am - 12:15pm Tu 2:00pm - 2:50pm	Seats (Total: 32) PHY 1410 PHY 1402	 Discussion
0203	Hailu Gebremariam TuTh 11:00am - 12:15pm W 3:00pm - 3:50pm	Seats (Total: 32) PHY 1410 PHY 1402	 Discussion
0204	Hailu Gebremariam TuTh 11:00am - 12:15pm M 4:00pm - 4:50pm	Seats (Total: 32) PHY 1410 PHY 1402	 Discussion

0301	Hailu Gebremariam MWF 10:00am - 10:50am Th 3:00pm - 3:50pm	Seats (Total: 32) PHY 1410 PHY 1402	 Discussion
0302	Hailu Gebremariam MWF 10:00am - 10:50am Tu 4:00pm - 4:50pm	Seats (Total: 32) PHY 1410 PHY 1402	 Discussion
0303	Hailu Gebremariam MWF 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 32) PHY 1410 PHY 1402	 Discussion
0304	Hailu Gebremariam MWF 10:00am - 10:50am W 3:00pm - 3:50pm	Seats (Total: 32) PHY 1410 PHY 0405	 Discussion
FC01	Aria Heidarian TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) PHY 1204	

PHYS165 **Introduction to Programming in the Physical Sciences**

Prerequisite: PHYS171, PHYS141, or PHYS161; or must have scored 3 or higher on AP PHYS exam.

Introduction to programming using examples in the physical sciences. Provides instruction in the techniques of upper-level languages such as Fortran, C, and Pascal, as well as an introduction to the object oriented programming techniques used in Python, C++ and Java. Includes strong component of visualization and graphing.

0101	Gregory Sullivan TuTh 9:30am - 10:45am	Seats (Total: 38) PHY 4221

PHYS170 **Professional Physics Seminar**

Corequisite: MATH140. Restriction: Must be in Physics program; or must be in Physics-Education program; or permission of instructor.

Provides a look at some of the major developments of current interest in physics research and discusses the activities physicists undertake in research, education, industry, government, and other areas of the economy.

0101	Thomas Gleason, Donna Hammer W 12:00pm - 12:50pm	Seats (Total: 35) PHY 4221

PHYS171 **Introductory Physics: Mechanics**

Prerequisite: (MATH140; and a high school physics course); or permission of CMNS-Physics department. Credit only granted for: PHYS141, PHYS161, or PHYS171. Additional information: General Education Natural Sciences Lab (DSNL) Course only when taken concurrently with PHYS275.

First semester of a three semester sequence for physics majors and those desiring a rigorous preparation in the physical sciences: kinematics, Newton's laws, energy and work, linear and angular momenta.

Jointly offered with PHYS171H.

0201	Christopher Palmer MWF 9:00am - 9:50am Th 9:00am - 9:50am	Seats (Total: 54) PHY 1201 ESJ 0215

PHYS171H **Introductory Physics: Mechanics**

(Perm req)

Prerequisite: (MATH140; and a high school physics course); or permission of CMNS-Physics department. Credit only granted for: PHYS141, PHYS161, or PHYS171. Additional information: General Education Natural Sciences Lab (DSNL) Course only when taken concurrently with PHYS275.

First semester of a three semester sequence for physics majors and those desiring a rigorous preparation in the physical sciences: kinematics, Newton's laws, energy and work, linear and angular momenta.

Jointly offered with PHYS171.

0201	Christopher Palmer MWF 9:00am - 9:50am Th 9:00am - 9:50am	Seats (Total: 54) PHY 1201 ESJ 0215

PHYS172 **Succeeding in Physics: Applications, Resources and Concepts**

(Perm req)

Corequisite: PHYS171. Restriction: Permission of CMNS-Physics department.

Supplemental instruction and support for students taking PHYS171, especially for students with limited high school physics preparation, or who will benefit from extra review and practice of relevant mathematics and physics concepts and skills.

0101	Peter Shawhan Tu 9:30am - 10:45am	Seats (Total: 15) PHY 1219

PHYS174 **Physics Laboratory Introduction**

Corequisite: MATH140. Recommended: High school physics.

Introduces students to the techniques of data gathering and analysis. This course will lay a foundation for higher-level labs in physics and the physical sciences. Students will learn to use laboratory equipment such as calipers, meters, oscilloscopes, and computer interfaces. Techniques of measurement and error analysis will be presented. Students will be taught to use the computer for data analysis with an emphasis on using spreadsheets.

0101	Ki-Yong Kim Tu 10:00am - 11:50am	Seats (Total: 12) PHY 3301
0201	Ki-Yong Kim W 2:00pm - 3:50pm	Seats (Total: 12) PHY 3301

PHYS204 **Workforce Skills for Physics Undergraduates**

(Perm req)

Prerequisite: PHYS171 and PHYS174; or permission of instructor. Restriction: Permission of CMNS-Physics department.

Developed for physics majors, this seminar supports students navigating opportunities in the workforce. Students will build self-confidence through skills assessments, identifying potential career paths, and learning effective job search strategies. Students will connect with professionals across industry to grow their network, build resumes, and conduct mock interviews. This class includes mentoring and developing awareness of workforce diversity issues.

0101	Stephanie Williams, Donna Hammer Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 8)

PHYS235 **The Manhattan Project**

Recommended: Students should be comfortable standard high school algebra II. Credit only granted for: PHYS199M or PHYS235. Formerly: PHYS199M.

Introduction to some critical ideas of nuclear physics and a review of some key historical developments starting at the end of the 19th century. Chronological development of nuclear physics from the discovery of radioactivity by Becquerel in 1896 through to the discovery of fission in Germany in 1938 followed by an examination of the programs to develop nuclear weapons in the United States, Britain and Germany. Extensive study of political, ethical, scientific, military, social, and economic issues surrounding the Manhattan Project.

0101	Sylvester Gates MW 4:00pm - 4:50pm M 11:00am - 11:50am	Seats (Total: 25) PHY 1410 MTH 0105	 Discussion

0102	Sylvester Gates MW 4:00pm - 4:50pm W 11:00am - 11:50am	Seats (Total: 25) PHY 1410 MTH 0302	Discussion
0103	Sylvester Gates MW 4:00pm - 4:50pm Tu 2:00pm - 2:50pm	Seats (Total: 25) PHY 1410 PLS 1117	Discussion
0104	Sylvester Gates MW 4:00pm - 4:50pm Th 2:00pm - 2:50pm	Seats (Total: 25) PHY 1410 MTH 0302	Discussion

PHYS260 **General Physics: Electricity, Magnetism and Thermodynamics**

Prerequisite: PHYS161 and MATH141. Corequisite: PHYS261. Credit only granted for: PHYS142, PHYS260, or PHYS272.

Second semester of a three-semester calculus-based general physics course. Electrostatics, magnetism, induction, DC and AC circuits; Maxwell's Equations, heat, and thermodynamics.

If purchasing used books additional software may be required.

0101	Howard Milchberg MW 4:30pm - 5:45pm Tu 11:00am - 11:50am	Seats (Total: 32) PHY 1412 PHY 1402	Discussion
0102	Howard Milchberg MW 4:30pm - 5:45pm W 10:00am - 10:50am	Seats (Total: 32) PHY 1412 PHY 1219	Discussion
0104	Howard Milchberg MW 4:30pm - 5:45pm W 9:00am - 9:50am	Seats (Total: 32) PHY 1412 PHY 0405	Discussion
0105	Howard Milchberg MW 4:30pm - 5:45pm F 3:00pm - 3:50pm	Seats (Total: 32) PHY 1412 PHY 0405	Discussion
0201	Hailu Gebremariam MW 3:00pm - 4:15pm Tu 8:00am - 8:50am	Seats (Total: 30) PHY 1412 PHY 0405	Discussion

0202	Hailu Gebremariam MW 3:00pm - 4:15pm M 9:00am - 9:50am	Seats (Total: 30) PHY 1412 PHY 0405	 Discussion
0203	Hailu Gebremariam MW 3:00pm - 4:15pm Tu 11:00am - 11:50am	Seats (Total: 30) PHY 1412 PHY 0405	 Discussion
0204	Hailu Gebremariam MW 3:00pm - 4:15pm F 2:00pm - 2:50pm	Seats (Total: 30) PHY 1412 PHY 0405	 Discussion
0205	Hailu Gebremariam MW 3:00pm - 4:15pm W 12:00pm - 12:50pm	Seats (Total: 30) PHY 1412 PHY 0405	 Discussion
0206	Hailu Gebremariam MW 3:00pm - 4:15pm M 4:30pm - 5:20pm	Seats (Total: 30) PHY 1412 PHY 0405	 Discussion
0207	Hailu Gebremariam MW 3:00pm - 4:15pm W 4:30pm - 5:20pm	Seats (Total: 30) PHY 1412 PHY 0405	 Discussion
0301	James Drake TuTh 2:00pm - 3:15pm M 12:00pm - 12:50pm	Seats (Total: 35) PHY 1412 PHY 0405	 Discussion
0302	James Drake TuTh 2:00pm - 3:15pm W 11:00am - 11:50am	Seats (Total: 35) PHY 1412 PHY 0405	 Discussion
0303	James Drake TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 35) PHY 1412 PHY 1219	 Discussion
0304	James Drake TuTh 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 35) PHY 1412 PHY 0405	 Discussion

0305	James Drake TuTh 2:00pm - 3:15pm Tu 1:00pm - 1:50pm	Seats (Total: 35) PHY 1412 PHY 0405	 Discussion
0501	Hailu Gebremariam TuTh 3:30pm - 4:45pm F 9:00am - 9:50am	Seats (Total: 30) PHY 1412 PHY 0405	 Discussion
0502	Hailu Gebremariam TuTh 3:30pm - 4:45pm F 12:00pm - 12:50pm	Seats (Total: 30) PHY 1412 PHY 0405	 Discussion
0503	Hailu Gebremariam TuTh 3:30pm - 4:45pm F 10:00am - 10:50am	Seats (Total: 30) PHY 1412 PHY 0405	 Discussion
0504	Hailu Gebremariam TuTh 3:30pm - 4:45pm W 10:00am - 10:50am	Seats (Total: 30) PHY 1412 PHY 0405	 Discussion
0505	Hailu Gebremariam TuTh 3:30pm - 4:45pm F 2:00pm - 2:50pm	Seats (Total: 30) PHY 1412 PHY 1204	 Discussion

PHYS260H **General Physics: Electricity, Magnetism and Thermodynamics**

Prerequisite: PHYS161 and MATH141. Corequisite: PHYS261. Credit only granted for: PHYS142, PHYS260, or PHYS272.

Second semester of a three-semester calculus-based general physics course. Electrostatics, magnetism, induction, DC and AC circuits; Maxwell's Equations, heat, and thermodynamics.

If purchasing used books additional software may be required.

0301	James Drake TuTh 2:00pm - 3:15pm M 12:00pm - 12:50pm	Seats (Total: 3) PHY 1412 PHY 0405	 Discussion

PHYS261 **General Physics: Mechanics, Vibrations, Waves, Heat (Laboratory)**

Prerequisite: PHYS161.

Lab includes experiments on mechanics, vibrations, waves, and heat. Engineering majors are expected to take PHYS260 and PHYS261 in the same semester.

Students must pay a $50.00 laboratory materials fee.

0202	Andris Skuja Tu 9:00am - 11:20am	Seats (Total: 36) PHY 3219	Lab
0204	Andris Skuja Th 9:00am - 11:20am	Seats (Total: 36) PHY 3219	Lab
0205	Andris Skuja M 11:30am - 1:50pm	Seats (Total: 36) PHY 3219	Lab
0206	Andris Skuja Tu 11:30am - 1:50pm	Seats (Total: 36) PHY 3219	Lab
0207	Andris Skuja W 11:30am - 1:50pm	Seats (Total: 36) PHY 3219	Lab
0208	Andris Skuja Th 11:30am - 1:50pm	Seats (Total: 36) PHY 3219	Lab
0209	Andris Skuja M 2:00pm - 4:20pm	Seats (Total: 36) PHY 3219	Lab
0210	Andris Skuja Tu 2:00pm - 4:20pm	Seats (Total: 36) PHY 3219	Lab
0212	Andris Skuja Th 2:00pm - 4:20pm	Seats (Total: 36) PHY 3219	Lab
0213	Andris Skuja M 4:30pm - 6:50pm	Seats (Total: 36) PHY 3219	Lab
0214	Andris Skuja Tu 4:30pm - 6:50pm	Seats (Total: 36) PHY 3219	Lab
0215	Andris Skuja W 4:30pm - 6:50pm	Seats (Total: 36) PHY 3219	Lab
0216	Andris Skuja Th 4:30pm - 6:50pm	Seats (Total: 36) PHY 3219	Lab
0217	Andris Skuja M 7:00pm - 9:20pm	Seats (Total: 36) PHY 3219	Lab

0218	Andris Skuja Tu 7:00pm - 9:20pm	Seats (Total: 36) PHY 3219	Lab
0219	Andris Skuja W 7:00pm - 9:20pm	Seats (Total: 36) PHY 3219	Lab
0221	Andris Skuja F 9:00am - 11:20am	Seats (Total: 36) PHY 3219	Lab

PHYS270 **General Physics: Electrodynamics, Light, Relativity and Modern Physics**

Prerequisite: PHYS261, MATH241, and PHYS260. Corequisite: PHYS271.

Third semester of a three-semester calculus-based general physics course. Waves, sound, electromagnetic waves, optics, special theory of relativity, and modern physics.

If purchasing used books additional software may be required.

0101	Eun-Suk Seo TuTh 5:00pm - 6:15pm Th 2:00pm - 2:50pm	Seats (Total: 33) PHY 1412 PHY 0405	Discussion
0102	Eun-Suk Seo TuTh 5:00pm - 6:15pm Th 4:00pm - 4:50pm	Seats (Total: 33) PHY 1412 PHY 4221	Discussion
0103	Eun-Suk Seo TuTh 5:00pm - 6:15pm W 9:00am - 9:50am	Seats (Total: 33) PHY 1412 PHY 1402	Discussion
0301	Drew Baden MWF 12:00pm - 12:50pm W 1:00pm - 1:50pm	Seats (Total: 34) PHY 1410 PHY 1219	Discussion
0302	Drew Baden MWF 12:00pm - 12:50pm M 2:00pm - 2:50pm	Seats (Total: 34) PHY 1410 PHY 0405	Discussion
0303	Drew Baden MWF 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 34) PHY 1410 PHY 4221	Discussion

0304	Drew Baden MWF 12:00pm - 12:50pm F 3:00pm - 3:50pm	Seats (Total: 34) PHY 1410 PHY 4221	 Discussion

PHYS271 **General Physics: Electrodynamics, Light, Relativity and Modern Physics (Laboratory)**

Prerequisite: PHYS261. Corequisite: PHYS270.

Lab includes experiments on ac circuits, magnetism, light and modern physics. PHYS270 and PHYS271 (lab) must be taken in the same semester.

Students must pay a $50.00 laboratory materials fee.

0102	Andris Skuja M 3:00pm - 5:50pm	Seats (Total: 36) PHY 3213	 Lab
0103	Andris Skuja M 6:00pm - 8:50pm	Seats (Total: 36) PHY 3213	 Lab
0104	Andris Skuja W 4:00pm - 6:50pm	Seats (Total: 36) PHY 3213	 Lab
0105	Andris Skuja Tu 10:00am - 12:50pm	Seats (Total: 36) PHY 3213	 Lab
0106	Andris Skuja Tu 1:00pm - 3:50pm	Seats (Total: 36) PHY 3213	 Lab
0117	Andris Skuja Th 11:00am - 1:50pm	Seats (Total: 36) PHY 3213	 Lab
0118	Andris Skuja Th 2:00pm - 4:50pm	Seats (Total: 36) PHY 3213	 Lab

PHYS272 **Introductory Physics: Fields**

Prerequisite: PHYS161 or PHYS171; and MATH141; and must have completed or be concurrently enrolled in MATH241. Credit only granted for: PHYS142, PHYS260, or PHYS272.

Second semester of a calculus based general physics course. Universal gravitation, electric and magnetic fields and potentials, simple circuits, Maxwell's equations in integral form. Continues the application of mathematics to conceptual models, now with more abstract components.

Jointly offered with PHYS 272H.

0101	Richard Greene TuTh 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 30) PHY 1219 ESJ 1215
0201	Michelle Girvan TuTh 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 30) PHY 1219 PHY 1219

PHYS272H **Introductory Physics: Fields**

Prerequisite: PHYS161 or PHYS171; and MATH141; and must have completed or be concurrently enrolled in MATH241. Credit only granted for: PHYS142, PHYS260, or PHYS272.

Second semester of a calculus based general physics course. Universal gravitation, electric and magnetic fields and potentials, simple circuits, Maxwell's equations in integral form. Continues the application of mathematics to conceptual models, now with more abstract components.

For general honors students only. Jointly offered with PHYS 272.

0101	Richard Greene TuTh 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 30) PHY 1219 ESJ 1215
0201	Michelle Girvan TuTh 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 30) PHY 1219 PHY 1219

PHYS273 **Introductory Physics: Waves**

Prerequisite: MATH241 and PHYS272; and must have completed or be concurrently enrolled in PHYS274, MATH243 or equivalent.

Mechanical and electrical oscillators, including damped and driven systems; coupled oscillators and normal modes; Fourier series and Fourier transforms; the classical wave equation, traveling and standing waves; reflection and transmission; Maxwell's equations in differential form; physical optics. Extensive use of complex variables.

Jointly offered with PHYS 273H.

0101	Peter Shawhan Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 50) PHY 1201 CCC 1111 PHY 1201

PHYS273H **Introductory Physics: Waves**

Prerequisite: MATH241 and PHYS272; and must have completed or be concurrently enrolled in PHYS274, MATH243 or equivalent.

Mechanical and electrical oscillators, including damped and driven systems; coupled oscillators and normal modes; Fourier series and Fourier transforms; the classical wave equation, traveling and standing waves; reflection and transmission; Maxwell's equations in differential form; physical optics. Extensive use of complex variables.

For general honors students only. Jointly offered with PHYS 273.

0101	Peter Shawhan	Seats (Total: 50)	
	Tu 12:30pm - 1:45pm	PHY 1201	
	Th 12:30pm - 1:45pm	CCC 1111	
	M 2:00pm - 2:50pm	PHY 1201	

PHYS274 **Mathematical Methods for Physics I**

Prerequisite: MATH241 and PHYS272.

A first course in mathematical methods for physics. Topics include linear algebra, curvilinear coordinates and vector analysis.

0101	Anson Hook	Seats (Total: 50)	
	MWF 12:00pm - 12:50pm	PHY 1204	

PHYS275 **Experimental Physics I: Mechanics and Heat**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in PHYS171 or PHYS161. Additional information: General Education Natural Sciences Lab (DSNL) Course only when taken concurrently with PHYS171 or PHYS161.

A first course for physics majors and interested engineering students introducing the methods of experimental science. Students learn to identify various statistical data distributions, carry out rigorous uncertainty analysis, and test whether a given theoretical model adequately describes the observed phenomena. These concepts are applied to sophisticated physical systems that exhibit complex behavior and can yield remarkably precise and accurate results. Experiments are chosen from the areas of mechanics and waves.

0101	Anwar Bhatti	Seats (Total: 13)	
	M 2:00pm - 5:50pm	PHY 3104	Lab
0201	Anwar Bhatti	Seats (Total: 13)	
	W 2:00pm - 5:50pm	PHY 3104	Lab

0301	Simone-Gunde Kulin Tu 2:00pm - 5:50pm	Seats (Total: 13) PHY 3104	 Lab
0501	Anwar Bhatti TuTh 9:00am - 10:50am	Seats (Total: 13) PHY 3104	 Lab

PHYS276 **Experimental Physics II: Electricity and Magnetism**

(Perm req)

Prerequisite: PHYS272 and PHYS275.

Second course in the three semester introductory sequence. Methods and rationale of experimental physics. Experiments chosen from the fields of electricity and magnetism including electrostatics, magnetostatics, magnetic induction, AC circuits.

Contact department for information to register for this course.

PHYS299 **Special Problems in Physics**

(Perm req)

Research or special study to complement courses taken elsewhere which are not fully equivalent to those in departmental requirements. Credit according to work done.

Contact department for information to register for this course.

PHYS299E **Special Problems in Physics; Developing Essential Research Skills**

(Perm req)

Research or special study to complement courses taken elsewhere which are not fully equivalent to those in departmental requirements. Credit according to work done.

Introduces students to the skills needed to become successful researchers. The course includes research experience, an introduction to programming, scientific reading and writing, presentation development and formal poster presentation.

0101	Donna Hammer W 6:00pm - 7:15pm	Seats (Total: 10) PHY 1309	

PHYS299R **Special Problems in Physics; General Physics**

Research or special study to complement courses taken elsewhere which are not fully equivalent to those in departmental requirements. Credit according to work done.

Contact department for information to register for this course.

PHYS331 **Physics for Life Sciences I**

Prerequisite: CHEM131; and (MATH131 or MATH136); and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS121, PHYS131 or PHYS 331.

The first part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic mechanics including forces and energy, properties of matter, and thermodynamics done in authentic biological contexts.

ESG1	Lorin Milescu	Seats (Total: 24)	
	Tu 9:30am - 10:45am	BLD4 5321	
	Th 11:00am - 12:15pm	BLD4 5321	
	Tu 2:00pm - 5:00pm	BLD4 5322	Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		
ESG2	Lorin Milescu	Seats (Total: 24)	
	Tu 9:30am - 10:45am	BLD4 5321	
	Th 11:00am - 12:15pm	BLD4 5321	
	Th 2:00pm - 5:00pm	BLD4 5322	Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		

PHYS371 **Modern Physics**

Prerequisite: PHYS273 and PHYS274. Corequisite: PHYS373. Credit only granted for: PHYS371 or PHYS420. Additional information: This course is intended primarily for physics and astronomy majors.

Introduces students to special relativity, thermodynamics and quantum mechanics at an intermediate level.

0101	Chandra Turpen	Seats (Total: 60)
	MW 11:00am - 12:15pm	PHY 1201

PHYS373 **Mathematical Methods for Physics II**

Prerequisite: PHYS273 and PHYS274.

A second course in mathematical methods for physics. Topics include introduction to ordinary differential equations, partial differential equations, and complex analysis.

0101	Kaustubh Agashe	Seats (Total: 70)
	TuTh 12:30pm - 1:45pm	PHY 1410

PHYS375 **Experimental Physics III: Electromagnetic Waves, Optics and Modern Physics**

(Perm req)

Prerequisite: PHYS276 and PHYS273.

Third course in the three-semester introductory sequence. Methods and rationale of experimental physics. Experiments chosen from the areas of electromagnetic waves, optics and modern physics.

Besides lab hours scheduled below, additional required lab time will be arranged.

0101	Wendell Hill MW 2:00pm - 2:50pm M 3:00pm - 5:50pm	Seats (Total: 14) PHY 1410 PHY 3115	 Lab
0103	Wendell Hill MW 2:00pm - 2:50pm Tu 3:00pm - 5:50pm	Seats (Total: 14) PHY 1410 PHY 3115	 Lab

PHYS386 **Experiential Learning**

(Perm req)

Contact department for information to register for this course.

PHYS389 **Undergraduate Thesis Research**

(Perm req)

Independent directed research and study on a topic selected by the student in consultation with his or her advisor. Final written thesis and oral defense will be expected.

Contact department for information to register for this course.

PHYS398 **Independent Studies Seminar**

(Perm req)

Credit according to work done. Enrollment is limited to students admitted to the independent studies program in physics.

Contact department for information to register for this course.

PHYS399 **Special Problems in Physics**

(Perm req)

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS399C **Special Problems in Physics; Physics STEM Seminar**

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS399D **Special Problems in Physics; Physics STEM Seminar II**

(Perm req)

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS399E **Special Problems in Physics; Physics STEM Seminar III**

(Perm req)

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS399K **Special Problems in Physics**

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS401 **Quantum Physics I**

Prerequisite: PHYS371 and PHYS373. Formerly: PHYS421.

Introduces some quantum phenomena leading to wave-particle duality. Schroedinger theory for bound states and scattering in one dimension. One-particle Schroedinger equation and the hydrogen atom.

0101	Steven Rolston	Seats (Total: 68)
	MWF 10:00am - 10:50am	PHY 1201
	F 11:00am - 11:50am	PHY 1201

PHYS402 **Quantum Physics II**

Prerequisite: PHYS401.

Quantum states as vectors; spin and spectroscopy, multiparticle systems, the periodic table, perturbation theory, band structure, etc.

0101	Theodore Jacobson	Seats (Total: 49)
	MW 10:00am - 10:50am	PHY 1402
	MW 11:00am - 11:50am	PHY 1402

PHYS404 **Introduction to Statistical Thermodynamics**

Prerequisite: PHYS371 or PHYS420.

Introduction to basic concepts in thermodynamics and statistical mechanics.

0101	Christopher Lobb	Seats (Total: 54)
	MWF 9:00am - 9:50am	PHY 4221

PHYS405 **Advanced Experiments**

(Perm req)

Prerequisite: PHYS375. Restriction: Must be in a major within CMNS-Physics department.

Advanced laboratory techniques. Selected experiments from many fields of modern physics. Emphasis on self-study of the phenomena, data analysis, and presentation in report form.

0101	Simone-Gunde Kulin	Seats (Total: 20)	
	W 12:00pm - 12:50pm	PHY 1219	Lab
	TBA	PHY 3112	Lab

PHYS406 **Experimental Research Development**

(Perm req)

Prerequisite: PHYS375. Restriction: Permsission of CMNS-Physics department. Additional information: The student is expected to work on the project for approximately 9 hours per week in a standard semester or a total of 135 hours in a non-standard semester. PHYS406 may not be used to satisfy an advanced physics elective.

Part I of a two-semester, independent, experimental research project supervised by a faculty mentor. The student participates significantly in experimental design, set-up, and collection and analysis of real, physical data, including the evaluation of experimental uncertainties. The student maintains a lab notebook and completes an end-of-semester progress report.

0101	Carter Hall	Seats (Total: 10)
	Contact instructor or department for details.	

PHYS407 **Undergraduate Experimental Research**

(Perm req)

Prerequisite: PHYS499 and PHYS375; and permission of CMNS-Physics department. Restriction: Must be in a major within CMNS-Physics department; and senior standing.

Students develop and complete an independent, experimental research project with a professor in the Physics Department. The project should be a continuation of work done in PHYS499A. To obtain permission, students must submit a proposal describing the experimental work to be completed and this proposal must be approved by their faculty mentor, the associate chair for undergraduate education and the chair of the laboratory committee. Students must maintain a lab notebook, give an oral presentation and complete a written report on their research that includes data and error analysis.

0101	Carter Hall	Seats (Total: 10)
	Contact instructor or department for details.	

PHYS410 **Classical Mechanics**

Prerequisite: PHYS373.

Theoretical foundations of mechanics with extensive application of the methods. Various mathematical tools of theoretical physics.

0101	Manuel Franco Sevilla	Seats (Total: 55)
	TuTh 11:00am - 12:15pm	PHY 1204
	F 1:00pm - 1:50pm	PHY 1204

PHYS411 **Intermediate Electricity and Magnetism**

Prerequisite: PHYS373.

Foundations of electromagnetic theory, with extensive applications of the methods. Thorough treatment of wave properties of solutions of Maxwell's equations.

0101	Xiangdong Ji	Seats (Total: 54)	
	TuTh 12:30pm - 1:45pm	PHY 4221	
	F 12:00pm - 12:50pm	PHY 4221	

PHYS412 **Intermediate Electricity and Magnetism I**

Prerequisite: PHYS373.

The first semester of a two semester course with emphasis on electrostatics and magnetostatics, boundary value problems, fields in matter, electrodynamics, and Maxwell's equations.

0101	Victor Yakovenko	Seats (Total: 32)	
	TuTh 12:30pm - 1:45pm	ATL 2416	
	F 12:00pm - 12:50pm	PHY 1402	Discussion

PHYS413 **Intermediate Electricity and Magnetism II**

Prerequisite: PHYS313 or PHYS412. Credit only granted for: PHYS411 or PHYS413.

The second semester of a two semester course with emphasis on electromagnetic waves, potentials and gauge invariance, and relativistic electrodynamics

0101	Paulo Bedaque	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	PHY 1204

PHYS420 **Principles of Modern Physics**

Prerequisite: MATH246. And PHYS271 and PHYS270; or PHYS273. Credit only granted for: PHYS371 or PHYS420.

A survey of atomic and nuclear phenomena and the main trends in modern physics. Appropriate for students in engineering and other physical sciences.

0101	Bei Lok Hu	Seats (Total: 40)
	MW 3:30pm - 4:45pm	PHY 1204

PHYS431 **Introduction to Solid State Physics**

Prerequisite: PHYS271, PHYS270, and MATH241. Restriction: Junior standing or higher; and must be in the Engineering: Materials Science program or Physics program. Cross-listed with: ENMA460. Credit only granted for: ENMA460 or PHYS431. Additional information: Materials Engineering students take ENMA460 and Physics students take PHYS431.

Classes of materials; introduction to basic ideal and real materials' behavior including mechanical, electrical, thermal, magnetic and optical responses of materials; importance of microstructure in behavior. One application of each property will be discussed in detail.

0101	Johnpierre Paglione	Seats (Total: 45)
	MW 5:00pm - 6:15pm	PHY 1402

PHYS441 **Topics in Nuclear and Particle Physics**

Prerequisite: PHYS401 or PHYS402. Corequisite: PHYS402.

A survey of concepts in particle and nuclear physics, with a topical emphasis on the impact of the Weak Interaction and the discovery of Parity Violation.

Contact department for information to register for this course.

PHYS457 **Introduction to Quantum Computing**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, PHYS274); and 1 course with a minimum grade of C- from (CMSC351, PHYS373). Restriction: Permission of CMNS-Physics department; or permission of CMNS-Computer Science department. Cross-listed with CMSC4 57. Credit only granted for: PHYS457 or CMSC457. Additional infor mation: No previous background in quantum mechanics is required.

An introduction to the concept of a quantum computer, including algorithms that outperform classical computation and methods for performing quantum computation reliably in the presence of noise. As this is a multidisciplinary subject, the course will cover basic concepts in theoretical computer science and physics in addition to introducing core quantum computing topics.

0101	Xiaodi Wu	Seats (Total: 60)
	TuTh 12:30pm - 1:45pm	CSI 2117

PHYS467 **Introduction to Quantum Technology**

Prerequisite: MATH141 and MATH240; or equivalent. Recommended: Students need not have taken a course on quantum mechanics; however, students should be comfortable with: probability theory, Markov chains, complex numbers, quantum states, measurements, unitary operations, matrix algebra, Pauli matrices, the tensor product, waves, the harmonic oscillator, the quantum harmonic oscillator, and the Schrodinger equation.

Investigates the physical systems used to implement quantum computers. Covers basics of atomic clocks, laser interferometers, quantum key distribution, quantum networks, and three types of qubits (ion-based, superconductor-based, and semiconductor-based).

0101	Alicia Kollar	Seats (Total: 30)
	TuTh 9:30am - 10:45am	PHY 1402

PHYS485 **Electronic Circuits**

(Perm req)

Prerequisite: PHYS272 and PHYS276. Restriction: Must be in a major within CMNS-Physics department.

Theory and application to experimental physics of modern semiconductor analog and digital circuits. Emphasis on understanding passive and active elements in practical circuits. Topics span the range from simple transistor circuits to microcomputers.

Additional Note: Jointly offered with PHYS685. Credit only granted for PHYS485 or PHYS685.

0101	Sarah Eno M 2:00pm - 2:50pm W 1:00pm - 4:50pm	Seats (Total: 16) PHY 1402 PHY 3214	 Lab
0102	Sarah Eno M 2:00pm - 2:50pm Tu 2:00pm - 5:50pm	Seats (Total: 16) PHY 1402 PHY 3214	 Lab

PHYS495 **Contemporary Data Acquisition Systems**

(Perm req)

Prerequisite: PHYS375 or Permission of the Instructor. Restriction: Permission of Department.

A survey of digital data acquisition techniques and associated hardware, with an emphasis on boolean algebra, logic gates, hexadecimal representation, finite state machines, and the Verilog Hardware Description Language (HDL). The lab will make use of Raspberry Pi microprocessors and FPGA development boards.

0101	Drew Baden F 2:00pm - 2:50pm Th 2:00pm - 5:20pm	Seats (Total: 12) PHY 3321 PHY 3321	 Lab

PHYS499A **Special Problems in Physics**

(Perm req)

Research or special study. Credit according to work done.

Contact department for information to register for this course.

PHYS499B **Special Problems in Physics**

(Perm req)

Research or special study. Credit according to work done.

Contact department for information to register for this course.

PHYS499V **Special Problems in Physics; Colloquium for Undergraduate Physics Majors**

(Perm req)

Research or special study. Credit according to work done.

0101	Instructor: TBA Th 4:00pm - 6:15pm	Seats (Total: 60) Location: TBA

PHYS610 **Mathematical Methods and Their Applications in Classical Mechanics and Electrodynamics I**

(Perm req)

Prerequisite: Must have an outstanding undergraduate background in physics. Restriction: Permission of CMNS-Physics Department.

First course of a two-semester graduate level sequence on classical mechanics, electrodynamics and relativity and the mathematics that underlie these subjects. Mathematical methods will generally be introduced in the context of relevant physical problems.

0101	Zackaria Chacko TuTh 9:30am - 11:30am	Seats (Total: 65) PHY 1201

PHYS612 **Quantum and Statistical Physics I**

(Perm req)

Prerequisite: Must have an outstanding undergraduate background in physics. Restriction: Permission of CMNS-Physics Department.

First course of a two-semester graduate level sequence on topics in quantum mechanics and statistical mechanics.

0101	Thomas Cohen MWF 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 65) PHY 1201 PHY 1201

PHYS624 **Advanced Quantum Mechanics**

Prerequisite: PHYS623.

Relativistic wave equations, second quantization in many body problems and relativistic wave equations, Feynman-Dyson perturbation theory, applications to many body problems, application to quantum electrodynamics, elements of renormalization.

0101	Zohreh Davoudi TuTh 9:30am - 10:45am	Seats (Total: 38) PHY 0405

PHYS675 **Introduction to Relativity, Gravitation and Cosmology**

Prerequisite: PHYS606 and PHYS601.

Review of special relativity, followed by a study of the equivalence principle, curved spacetimes, and Einstein's equations. Selected applications to the solar system, stellar structure, black holes, gravitational waves, and cosmology.

0101	Theodore Jacobson TuTh 12:30pm - 1:45pm	Seats (Total: 30) CCC 1200	

PHYS685 **Research Electronics**

(Perm req)

Prerequisite: An outstanding undergraduate background in physics or permission of the instructor. Restriction: Must not have completed PHYS485. Credit only granted for: PHYS485 or PHYS685.

An integrated lecture and laboratory course in electronics with equal emphasis on experimental methods and results and analysis using device models and up-to-date mathematical and numerical tools. Experiments and analysis of circuits with passive and single active devices form the background for the study of operational amplifiers, digital integrated circuits and systems, and microcomputers. The general topics of impedance matching, frequency response, feedback, interfacing and the extraction of signal from noise are stressed.

Additional Note: Jointly offered with PHY485. Credit only granted for PH YS685or PHYS485.

0101	Sarah Eno M 2:00pm - 2:50pm W 1:00pm - 4:50pm	Seats (Total: 16) PHY 1402 PHY 3214	 Lab
0102	Sarah Eno M 2:00pm - 2:50pm Tu 2:00pm - 5:50pm	Seats (Total: 16) PHY 1402 PHY 3214	 Lab

PHYS709 **Seminar in General Physics; Statistical Physics**

Cross-listed with CHPH709B.

0101	Pratyush Tiwary Tu 1:15pm - 2:30pm	Seats (Total: 30) IPT 1116	

PHYS715 **Chaotic Dynamics**

Prerequisite: PHYS601.

Theory and applications of chaos in dynamical systems including such topics as strange attractors, Lyapanov exponents, quasiperiodicity, period doubling, intermittency, crises, fractal basin boundaries, chaotic scattering, KAM tori, and quantum chaos.

0101	Daniel Lathrop TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMP 1202	

PHYS728J **Seminar in Atomic and Molecular Physics; JQI Seminar**

0101	Steven Rolston	Seats (Total: 60)
	M 11:00am - 12:50pm	ATL 2400

PHYS733 **Topological Quantum Phases of Matter**

Modern understanding of interacting topological phases of matter. Topics include fractional quantum Hall states, quantum spin liquids, symmetry-protected topological states, topological quantum field theory, Chem-Simons theory, parton construction, and modular tensor categories.

0101	Maissam Barkeshli	Seats (Total: 25)
	MW 1:00pm - 2:15pm	ATL 1114

PHYS738 **Seminar in Experimental Solid State Physics; Quantum Mechanical Many-Body Problems**

0101	Johnpierre Paglione	Seats (Total: 15)
	Th 2:00pm - 3:50pm	PHY 1201

PHYS739 **Seminar in Theoretical Solid State Physics; Quantum Mechanical Many-Body Problems**

0101	Sankar Das Sarma	Seats (Total: 15)
	Tu 11:00am - 12:15pm	PSC 3150

PHYS749 **Seminar in Theoretical Nuclear Physics**

0101	Xiangdong Ji	Seats (Total: 20)
	W 4:00pm - 6:00pm	EGR 3114

PHYS758E **Seminar in Elementary Particles and Quantum Field Theory; Seminar in Elementary Particles and Quantum Field Theory**

0101	Manuel Franco Sevilla	Seats (Total: 25)
	W 4:00pm - 5:50pm	PHY 1201

PHYS759 **Seminar in Elementary Particles and Quantum Field Theory**

0101	Kaustubh Agashe	Seats (Total: 15)
	M 3:00pm - 4:40pm	PSC 3150

PHYS761 **Plasma Physics I: Survey**

Prerequisite: PHYS606 and PHYS604.

A detailed study of plasma physics. The first semester treats particle orbit theory, magnetohydrodynamics, plasma waves, and transport phenomena.

0101	Thomas Antonsen	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	ATL 2352

PHYS769 **Seminar in Plasma Physics**

Class will meet in ERF 1207.

0101	William Dorland W 4:00pm - 5:15pm	Seats (Total: 20) CHE 2116

PHYS778 **Seminar in Space and Cosmic Ray Physics**

0101	Eun-Suk Seo M 4:30pm - 5:45pm	Seats (Total: 20) CHE 2116

PHYS798 **Special Problems in Advanced Physics**

(Perm req)

Projects or special study in advanced physics.

Contact department for information to register for this course.

PHYS798B **Special Problems in Advanced Physics; Physics Colloquium**

Projects or special study in advanced physics.

0101	Thomas Cohen Tu 3:30pm - 6:15pm	Seats (Total: 142) PHY 1410

PHYS798G **Special Problems in Advanced Physics; Superconducting Devices and Circuits**

Projects or special study in advanced physics.

0101	Kevin Osborn TuTh 11:00am - 12:15pm	Seats (Total: 12) ATL 1106

PHYS798L **Special Problems in Advanced Physics; Biophysics**

Projects or special study in advanced physics.

0101	Arpita Upadhyaya M 4:00pm - 5:30pm	Seats (Total: 20) IPT 1116

PHYS798Q **Special Problems in Advanced Physics; Seminar in Quantum Physics, Information, and Technology**

Projects or special study in advanced physics.

0101	Alexey Gorshkov F 12:00pm - 12:50pm	Seats (Total: 100) ATL 2324

PHYS799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

PHYS838C **Special Topics in Experimental Solid State Physics; Superconductivity, Quantum Materials and Nanoscience Seminar**

Credit according to work done.

0101	Johnpierre Paglione M 4:00pm - 5:50pm	Seats (Total: 50) PHY 1201

PHYS839A **Special Topics in Theoretical Solid State Physics; Theory of Low Dimensional Systems**

Credit according to work done.

0101	Sankar Das Sarma F 4:00pm - 7:00pm	Seats (Total: 20) Location: TBA

PHYS859A **Special Topics in Elementary Particles and Quantum Field Theory; AdS/CFT and BSM**

Credit according to work done.

Prerequisites: Intended for students that have completed a year of quantum field theory (at the level of PHYS624, PHYS851), or roughly at the level of understanding the basics of Gauge Theory, the Higgs mechanism Loops and Renormalization. Familiarity with the Standard Modelat the level of PHYS751 will be helpful, as will familiarity with General Relativity. Introduces various field theoretic methods, both perturbative and non-perturbative, such as AdS/CFT Duality and Effective Field Theory methodology, and some Beyond Standard Model paradigms within particle physics and inflationary cosmology and their implications for experiments/observations.

0101	Raman Sundrum TuTh 11:00am - 12:15pm	Seats (Total: 15) HBK 0125

PHYS898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

PHYS899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

PLCY Public Policy Fall 2023

PLCY100 **Foundations of Public Policy**

A survey course, focusing on public policy institutions and analytical issues as well as on overview of key public policy problems. Students will be introduced to public policy as a discipline, with a brief overview of the actors and institutions involved in the process, and familiarize themselves with the kinds of problems typically requiring public action. The course will examine these problems from a multijurisdictional and multisectoral perspective. Specific policy areas examined include education policy, health policy, economic and budgetary policy, criminal justice policy, environmental policy, and national and homeland security policy. The course should permit students to have broad foundational exposure to the field that will give them a solid base for more advanced courses.

0101	M Apolonia Calderon Cervantes MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) TMH 0301 EDU 2119	Discussion
0102	M Apolonia Calderon Cervantes MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TMH 0301 SQH 1103	Discussion
0103	M Apolonia Calderon Cervantes MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TMH 0301 EDU 2119	Discussion
0104	M Apolonia Calderon Cervantes MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) TMH 0301 TWS 1313	Discussion
0201	Jennifer Littlefield TuTh 3:30pm - 4:25pm F 10:00am - 10:50am	Seats (Total: 25) TMH 0301 TWS 0201	Discussion
0202	Jennifer Littlefield TuTh 3:30pm - 4:25pm F 10:00am - 10:50am	Seats (Total: 25) TMH 0301 TWS 0205	Discussion
0203	Jennifer Littlefield TuTh 3:30pm - 4:25pm F 11:00am - 11:50am	Seats (Total: 25) TMH 0301 SQH 1105	Discussion
0204	Jennifer Littlefield TuTh 3:30pm - 4:25pm F 12:00pm - 12:50pm	Seats (Total: 25) TMH 0301 SQH 1105	Discussion

PLCY101 Great Thinkers on Public Policy

Great ideas in public policy, such as equality, efficiency, sovereignty, liberty, bureaucracy, democracy and security are explored through the lens of great thinkers. An introduction to the intellectual foundations of public policy, from ancient theories on collective public action through the more contemporary development of public policy as a discipline. This may start as early as the ancient Greek philosophers and their views on public action through contemporary classics of public policy. At the conclusion of the course, students will have read classic works in the field and will master the key themes that have dominated the intellectual debates about public policy over its history. Emphasis will be on the interdisciplinary foundations of public policy, through examining core disciplinary contributions from economics, political science, management, philosophy, and other relevant disciplines.

0101	Philip Joyce TuTh 12:30pm - 1:45pm	Seats (Total: 75) ESJ 1215

PLCY201 **Public Leaders and Active Citizens**

Credit only granted for: PLCY201 or PUAF201. Formerly: PUAF201.

Aims to inspire, teach and engage students in the theory and practice of public leadership from the local to the national to the global level. Students will learn and apply diverse approaches to leadership in a multicultural society while developing an understanding of key frameworks and practices necessary to foster collective action across private, public, and nonprofit sectors. This course will allow students to become informed citizens able to reason critically and persuasively about public matters Students will also explore and assess their own personal values, beliefs, and purpose as they develop their leadership potential.

0101	Nancy Lineman Tu 5:00pm - 7:30pm	Seats (Total: 70) ESJ 2212
0201	Gregory Ramsay TuTh 9:30am - 10:45am	Seats (Total: 70) TMH 0301
FC01	Margaret Brindle TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 34) BPS 1238
FC02	Margaret Brindle TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 34) BPS 1238

PLCY201S **Public Leaders and Active Citizens**

Credit only granted for: PLCY201 or PUAF201. Formerly: PUAF201.

Aims to inspire, teach and engage students in the theory and practice of public leadership from the local to the national to the global level. Students will learn and apply diverse approaches to leadership in a multicultural society while developing an understanding of key frameworks and practices necessary to foster collective action across private, public, and nonprofit sectors. This course will allow students to become informed citizens able to reason critically and persuasively about public matters Students will also explore and assess their own personal values, beliefs, and purpose as they develop their leadership potential.

Restricted to freshman students in College Park Scholars Public Leadership program.

0101	Susannah Washburn TuTh 2:00pm - 3:15pm	Seats (Total: 96) CCC 1205

PLCY203 **Liberty and Justice for All: Ethics and Moral Issues in Public Policy**

Students will broaden their understanding of the moral dimensions of public policy as well as their own individual moral perspective. Discussions will include the ideal of a just society, and the place of liberty and equality in it, while focusing on contemporary theories of ethics and justice. It will develop students' appreciation of the ethical challenges unique to the public service sector while building their skills in ethical analysis and decision-making. We will explore the increasing ethical challenges in a world in which technology, global risks, and societal developments are accelerating faster than our understanding can keep pace. A framework for ethical decision-making underpins the course.

0101	Anne Kaiser MW 3:00pm - 4:15pm	Seats (Total: 60) TYD 1101
0201	Anne Kaiser TuTh 2:00pm - 3:15pm	Seats (Total: 60) TWS 1100

PLCY213 **Foundations of Nonprofit Leadership and Social Innovation**

Through discussions of contemporary trends, challenges and issues, this course provides an introduction to the nonprofit and NGO sectors, social innovation, and the leadership and management skills required to achieve social impact. The course will explore the history, theories, and roles of philanthropy, the nonprofit sector, and social innovation in societies and cultures. Students will be able to demonstrate an understanding of the process and principles of social entrepreneurship and social innovation. Additionally, the course will introduce students to topics in leadership, social innovation, resource development, community mobilization through networks, the role of policy-making in creating change, project management, and overall strategies for achieving social impact. The course will include mini hands-on learning experiences that allow them to apply key learning outcomes.

0101	Ebonie Johnson Cooper TuTh 11:00am - 12:15pm	Seats (Total: 40) ASY 3203
0201	Claire Dunning TuTh 9:30am - 10:45am	Seats (Total: 40) TMH 0225

PLCY214 **Leading and Investing in Social Change: Re-defining and Experimenting with Philanthropy**

Credit only granted for: PLCY214, PUAF214 or PUAF359I. Formerly: PUAF359I, PUAF214.

Defines philanthropy as an exploration of how one develops a vision of the public good and then deploys resources (including donations, volunteers, and voluntary associations) to achieve an impact.

Restricted to students in Carillon Communities.

0101	Patricia Bory	Seats (Total: 65)
	TuTh 2:00pm - 3:15pm	ESJ 0215
	Restricted to students in the iGive Living Learning Program.	

PLCY240 **Ethical, Policy and Social Implications of Science and Technology**

Restriction: Must be in the Science, Technology, Ethics and Policy minor. Cross-listed with: ENES240. Credit only granted for: ENES240 or PLCY240.

Asks students to think about how society should manage complexity, transformation, and uncertainty with an eye on developing a broader sense of ethics and social responsibility. Introduces analytical frameworks, concepts, and data collection techniques that interdisciplinary scholars use to map relationships among science, technology and society and generate important questions about the future of society.

0101	Timothy Reedy	Seats (Total: 50)
	TuTh 12:30pm - 1:45pm	HJP 2242

PLCY288A **Introduction to Public Policy Topics; 21st Century Racial Justice and Gender from the Bullhorn to the Ballot**

Introductory-level special topics focusing on a Public Policy problem or issue area.

The intersection of gender and racial justice movements of the past two decades. Students will examine the representation and complication of gender within police reform, voting rights and environmental justice movements, among others. Particular attention will be given to the role gender has played as these issues and related policies have evolved in the modern era.

0101	Rexanah Wyse Morrissette	Seats (Total: 25)
	TuTh 6:00pm - 7:15pm	SQH 1123

PLCY288L **Introduction to Public Policy Topics; Law and Public Policy--Organizing and Advocating for Justice**

Introductory-level special topics focusing on a Public Policy problem or issue area.

Students will gain a contextual understanding of how policy decisions and legal structures affect different people, as well as the role of law in organizing and advocating for just policy and social change. Students will analyze how structural inequities are shaped by historical, legal, social, and political factors, building on that knowledge to strategize solutions to problems requiring policy reform and systemic change.

0101	Brandi Slaughter	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	PHY 2213

PLCY288Q **Introduction to Public Policy Topics; Introduction to International Security**

Introductory-level special topics focusing on a Public Policy problem or issue area.

Introduces major concepts, debates, and challenges in international security policy. Some of today's problems have existed in various forms for centuries, such as potential conflicts between great powers, violence by governments against their own people and by terrorist organizations, and the disruptive effects of powerful new technology. Some are more recent, such as nuclear deterrence and non-proliferation, humanitarian crises, and human security. And others, including cyber security, drones, and climate change, are the leading edge of future security challenges. Fundamental questions about how to make the world safer will be a major theme of this course.

0101	Devin Entrikin	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TLF 0103

PLCY300 **Governance: Collective Action in the Public Interest**

Prerequisite: PLCY100. Restriction: Must be in a major in PLCY-School of Public Policy.

Examination of societal responses to public problems, including actions by government, non-profit and private sector actors, as well as civil society. Students will examine the roles of these various actors, as well as the nature of civic responsibility. The course will examine the various stages of the policy process, asking the following questions: How does something get defined as a problem that requires a public policy response? How do we think about what the options are for this response, and how do we choose among them? What are the factors that contribute to successful policy implementation? How do we evaluate the success of public policies? These questionswill be addressed using examples of current public policy problems, and students will be expected to engage in individual and collaborative work to design responses to those problems.

0201	Niambi Carter	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	TMH 0225

PLCY301 **Sustainability**

Cross-listed with: AGNR301. Credit only granted for: AGNR301, PUAF301, or PLCY301. Formerly: PUAF301.

Designed for students whose academic majors would be enhanced by the complementary study of a widely shared but hard-to-operationalize aspiration: that present choices should preserve or improve future options rather than foreclose or degrade them. How should we understand sustainability? How might we achieve it? How would we know if we had achieved it? And how could sustainability activists of a rising generation lead by example?

0101	Caroline Boules	Seats (Total: 165)
	TuTh 12:30pm - 1:45pm	JMZ 0220

PLCY302 **Examining Pluralism in Public Policy**

Credit only granted for: PLCY302 or PUAF302. Formerly: PUAF302.

Understanding pluralism and how groups and individuals coexist in society is an essential part of the public policy process. This course will examine the ways in which the diverse experiences of race, gender, ethnicity, class, orientation, identity, and religion impact the understanding of and equitable delivery of public policy. The examination of how identity development shapes our understanding of society and influences the decision-making process is central to students' shaping policy that is truly for the people. This course will equip students with the skills needed to analyze pluralism and draw conclusions about the application of various theories to public policy issues.

0201	Ebonie Johnson Cooper TuTh 2:00pm - 3:15pm	Seats (Total: 40) TMH 0225
0301	M Apolonia Calderon Cervantes MW 3:00pm - 4:15pm	Seats (Total: 40) PHY 2214
0401	Patrina Clark Th 4:30pm - 7:00pm	Seats (Total: 40) TMH 0225

PLCY303 **Public Economics Raising and Spending the People's Money**

Prerequisite: ECON200. Restriction: Must be in a major in PLCY-School of Public Policy.

Applied course in public finance, including introductions to resource mobilization (including taxation), macroeconomic policy, key public expenditure policies, and government budgetary processes and politics. The course will build on the foundations from ECON 202 to address the specific application of public finance principles to solving public problems. The course will focus on the principles of welfare economics (including market failure), economic principles as applied to particular spending programs and tax choices, and issues and institutions involved in the allocation and management of resources both at a national and subnational level. The focus of the course is on these issues from both a domestic and global perspective.

0101	Thomas Spreen TuTh 9:30am - 10:45am	Seats (Total: 40) EDU 1121

PLCY304 **Evaluating Evidence: Finding Truth in Numbers**

Prerequisite: STAT100. Restriction: Must be in a major in PLCY-School of Public Policy.

Enables students to understand the research done by others with a sufficiently skeptical eye to allow them to determine whether the findings of the research are valid given the assumptions made and methods used. This will involve, in part, thinking about the various problems in research design or conduct that could lead to faulty conclusions. It will also involve being able to differentiate between credible sources of information and those that are not objective. At the conclusion of the course, students should be able to differentiate objective evidence from political argumentation.

0101	Michael Busse MWF 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 40) TWS 0234 TMH 0225	 Discussion
0201	Michael Busse MWF 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 40) TWS 0223 TMH 0225	 Discussion

PLCY306 **Public Policy Analysis in Action**

Restriction: Must have earned a minimum of 60 credits; and must be in a major in PLCY-School of Public Policy.

Utilizes our unique location in the Washington, D.C. region to create a laboratory within which to analyze local, regional, national and international policy problems. Students will be put into teams and assigned to real and timely policy cases. The course will include meetings and field trips with local leaders in the field, ideally connected to the cases. Student will then expand and apply their use of policy analysis and evaluation skills to define those problems, analyze alternative responses, devise appropriate strategies for implementation, and evaluate the success of the proposed policy and implementation. The course will conclude with team presentations to local leaders and faculty. This distinctive course will serve to prepare students for their client- based senior capstone course.

0101	Shanna Pearson TuTh 11:00am - 12:15pm	Seats (Total: 40) TMH 0225
0201	Curtis Valentine Tu 3:30pm - 6:00pm	Seats (Total: 40) TWS 0223

PLCY309 **Internship in Political Institutions: State and Local**

(Perm req)

Offers students supervised internship placements in state and local political or public policy organizations.

0101	Martin Sanders Contact instructor or department for details.	Seats (Total: 30)

PLCY310 **Nonprofit Leadership and Social Innovation in Action**

Prerequisite: PLCY 213.

Furthers students understanding of topics in leadership, social innovation, resource development, community mobilization through networks, and the role of policy making in creating change. This course will further students understanding of the creation and leadership of nonprofits, social ventures, governance and boards; strategic planning and partnerships; advocacy and public policy processes; community outreach; working in teams, effective communications, and cross-sector approaches to scaling up social impact.

0101	Selvon Waldron M 6:00pm - 8:30pm	Seats (Total: 45) TWS 0236

PLCY311 **Women in Leadership**

Credit only granted for: PUAF311, PLCY311 or PUAF359W. Formerly: PUAF359W.

Examines the role of women in the leadership process including the participation of women as activists, voters, advocates, public leaders and as agents of change through various avenues including, among others, public service (elected and appointed), the media, community service, political organizations, and the nonprofit sector.

0101	Anne Kaiser Tu 4:15pm - 6:45pm	Seats (Total: 30) TMH 0225

PLCY313 **Advocacy in the American Political System**

Credit only granted for: PUAF313, PLCY313 or PUAF359C. Formerly: PUAF359C.

Introduces students to the creation of law through the legislative process with a special focus on the Maryland General Assembly.

0101	Gerard Evans M 2:00pm - 4:30pm	Seats (Total: 100) TMH 0301

PLCY380 **Innovation and Social Change: Do Good Now**

Credit only granted for: ARHU380, BSOS388B, PLCY388D, or PLCY380. Formerly: PLCY388D.

Introduces students to the concept of social innovation while exploring the many mechanisms for achieving social impact. It is team-based, highly interactive and dynamic, and provides an opportunity for students to generate solutions to a wide range of problems facing many communities today. Deepens the students understanding of entrepreneurship and innovation practices by guiding them through the creation and implementation process as applied to a project idea of their choice.

0101	James Stillwell Tu 4:00pm - 6:30pm	Seats (Total: 30) JMZ 3205
0201	Katlin Gray TuTh 9:30am - 10:45am	Seats (Total: 35) ESJ 1309

PLCY388A **Special Topics in Public Policy; Child and Family Policy Impact**

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Jointly offered with FMSC498P. Credit only granted for PLCY388A or FMSC4 98P. For poor and low-income families, federal programs such as Medicaid , Child care, SNAP and child nutrition programs are a lifeline every day. Some programs also have policies that consider more than income eligibility, such as number of hours of work, disability, and immigration status. Budget choices have a significant impact on pol icy intentions. Students will learn about and analyze the major federal programs and federal budgets for these policy areas; understand fro m data the impact of such programs and policies; and be introduced to significant advocacy efforts and considerations that shaped hese po licy decisions.

0101	Brandi Slaughter	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	TWS 0207

PLCY388N **Special Topics in Public Policy; Advancing Justice Through Leadership and Public Service**

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Must be in the Rawlings Undergraduate Leadership Fellows Program. Students will engage in leadership-based learning and public service projects to examine contemporary issues in public policy.

0101	Nina Harris	Seats (Total: 25)
	W 4:15pm - 6:45pm	TMH 0102

PLCY388V **Special Topics in Public Policy; Public Policy Challenges in Africa**

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Introduces major public policy challenges in Africa today and includes a brief review of African history from 1600 through the post-colonial period to provide critical background. Catalyzing economic growth, promoting democratic governance, and reducing armed conflict will be discussed. Also covered are the role of African diasporas and migration in national development, managing the continent's rapid urbanization, and improving service delivery in key areas such as health and education.

0101	Michael Woldemariam	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TWS 0232

PLCY399B **Directed Study in Public Policy; Policy Ambassadors**

(Perm req)

Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

As School of Public Policy Ambassadors, students share their experience as SPP students with others through skill-building activities such as: public speaking, event and program planning, personal storytelling, social media, and networking. Ambassadors will burnish their leadership skills as SPP representatives with a specific focus on recruiting prospective students.

0101	Beatrice DeBelen Contact instructor or department for details. Class time/details on ELMs	Seats (Total: 30) ONLINE

PLCY399R **Directed Study in Public Policy; Independent Research**

(Perm req)

Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

Contact department for information to register for this course.

PLCY399T **Directed Study in Public Policy; Undergraduate Teaching Assistant**

(Perm req)

Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

Contact department for information to register for this course.

PLCY400 **Senior Capstone**

(Perm req)

Prerequisite: PLCY306. Restriction: Permission of PLCY-School of Public Policy; and must have earned a minimum of 90 credits.

Public Policy students will take the skills and knowledge gained through their curriculum and apply them through their senior capstone course. Students will work in teams on problems and issues presented by outside clients, with guidance from faculty facilitators and interaction with the clients. Each team will work with the client to address a particular problem and produce a mutually agreed upon outcome. These hands on projects will advance students' understanding of the analytical, leadership, communication and problem solving skills necessary to address today's policy problems while allowing them to gain professional level experience that could contribute to their success in their post UMD endeavors. The course will conclude with an event that allows all teams to present their findings and outcomes to their client while being evaluated by faculty and public policy professionals.

0101	Martin Sanders Tu 6:00pm - 8:30pm	Seats (Total: 25) ASY 3207
0201	Patrina Clark W 5:00pm - 7:30pm	Seats (Total: 30) TWS 0207

PLCY401 **Contemporary Issues in Public Policy**

Restriction: Must have earned a minimum of 90 credits.

An integrative course that allows policy students to explore the complexities of the policy-making process from the perspective of specific policy topics. They will learn about and discuss subject- based issues in a seminar format led by faculty and policy experts. Site visits to federal agencies, guest speakers, and round table sessions ensure that students receive a variety of real-world perspectives on their chosen policy area.

0101	Tracy Thompson TuTh 12:30pm - 1:45pm *Criminal justice policy.*	Seats (Total: 30) SQH 1105
0201	Joshua Itzkowitz Shifrinson M 4:30pm - 7:00pm *Examines debates over the United States foreign, diplomatic, and defens policy collectively termed its grand strategy in international a ffairs. Focuses on the historical, political, and strategic drivers of U.S. grand strategy and how policymakers weigh these factors.*	Seats (Total: 27) SQH 1101

PLCY488N **Advanced Special Topics in Public Policy; Securing the Bag: Principles of Wages, Labor and Economic Equality**

Advanced special topics for upper level students focusing on topics related to Public Policy.

Prerequisites: Must be in a major in PLCY-School of Public Policy. Must have earned a minimum of 60 credits. Why do corporate executives earn so much more than the employees they lead? What factors determine the level of compensation paid to workers? Do private sector Boards of Directors have an obligation to weigh in on issues of pay equity? Why does government get involved in public and private sector labor disputes? Do regulatory wage programs really work? Why do those individuals and entities responsible for investing capital seem to get such preferential treatment in our market-based economy? These are the questions that are explored in this class, where students examine federal and state policy objectives that are designed to supportthe flow of labor, creativity and capital that are the cornerstones of the U.S. Economy.

0101	Leonard Howie Th 4:15pm - 6:45pm	Seats (Total: 13) SKN 1115

PLCY488Y **Advanced Special Topics in Public Policy; Contemporary U.S. Affordable Housing Policy**

Advanced special topics for upper level students focusing on topics related to Public Policy.

Restriction: Must be in a major in PLCY-School of Public Policy. Must have earned a minimum of 60 credits. An integrative course that allows policy students to explore timely affordable housing policy issues. Students will learn about current affordable housing issues in the U.S., including but not limited to, developing environmentally appropriate and resilient affordable housing,the surge in household growth and "missing middle housing," the rezoningof single-family neighborhoods, institutional investment in single family homes, the correlation between housing location and educational outcomes, reducing longstanding racial inequities in housingaccess, andbuilding black household wealth through homeownership or alternative means. The course will be in a seminar format led by faculty and policy experts.

0101	MIchael Bodaken W 1:30pm - 4:00pm	Seats (Total: 13) KNI 1206

PLCY610 **Quantitative Aspects of Public Policy**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY610 or PUAF610. Formerly: PUAF610.

Introduces statistical methods needed for evaluating and choosing among policy options. Topics include probability; decision-making under uncertainty; the organization, interpretation, and visual display of complex data; prediction and inferences about causality; hypothesis testing; and linear and multiple regression. Develops analytical skills and the ability to apply theory to complex, real-world problems.

0101	Alec Worsnop W 4:15pm - 6:45pm *This section has optional online discussion sessions, Fridays, 11 a.m - 12:30 p.m.*	Seats (Total: 40) TWS 0236
0201	Michael Busse M 4:15pm - 6:45pm *This section has optional online discussion sessions, Fridays, 9:15am - 10:45am*	Seats (Total: 45) TMH 0225
0301	Alec Worsnop Th 9:15am - 11:45am *This section has optional online discussion sessions, Fridays, 9:15am - 10:45am.*	Seats (Total: 40) TMH 0102

PLCY630 **Normative and Political Dimensions of Public Policy**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY630 or PLCY688E. Formerly: PLCY688E.

Explores the normative and political dimensions of governance--or policymaking--at the domestic (focusing on the US) and global levels. Policymaking involves a myriad of public and private actors at the local, national, transnational, and global levels that have competing aims and values. Their interaction produces formal and informal policies that affect the international order, interstate relations, subnational dynamics, and individuals. Drawing on theory from multiple disciplines and case examples, the course examines governance at these interrelated levels. Students learn core concepts, debates, and actors involved in policy making, develop tools to identify the causes and consequences of different policies, and build skills to influence public governance. Students also critically analyze how the actors, institutions, and scholarship covered perpetuate systemic racism and other inequities based on gender, class, ethnicity, sexual orientation, religion, dis/ability, etc.

0101	Mark Croatti Th 4:15pm - 6:45pm	Seats (Total: 25) TYD 2111
0201	Mark Croatti Th 7:00pm - 9:30pm	Seats (Total: 25) TYD 2111

PLCY631 **Governance: Leadership, Management and Accountability**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY631 or PLCY688G. Formerly: PLCY688G.

Emphasizes that regardless of technical specialization, public policy practitioners are required to lead people and organizations, manage resources and processes, and be held accountable for their actions. Provides knowledge, insights, skills, and abilities to successfully participate in and contribute to the policy process and lead and manage in line with democratic norms and values. Shows the need to pursue efficiency, effectiveness, and speed while also prioritizing justice, equity, procedural fairness, and due process. Focuses on the "people" side of organizational life, ethical decision-making, and the ability to communicate effectively.

0101	Samuel McCann Tu 7:00pm - 9:30pm	Seats (Total: 22) TMH 0225
0201	Elizabeth Duke Tu 9:15am - 11:45am	Seats (Total: 25) TMH 0102

PLCY640 **Microeconomic and Policy Analysis**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY640 or PUAF640. Formerly: PUAF640.

Applies intermediate microeconomic theory to public policy issues: resource allocation by firms and consumers; the response of economic agents to changes in incentives; market allocations in competitive and non-competitive environments; and market failures and government remedies. Uses extended case studies of particular issues in such areas as the environment (acid rain), international trade (tariffs), industry regulation (cable TV), and the provision of public goods (highways).

0101	Yueming Qiu Tu 1:30pm - 4:00pm	Seats (Total: 38) SQH 1101
	This section has optional online discussion sessions, Fridays, 9:15am - 10:45am.	
0301	Seth Weissman W 4:15pm - 6:45pm	Seats (Total: 40) TMH 0225
	This section has optional online discussion sessions, Fridays, 11am - 12:30pm	

PLCY641 **Macroeconomics and Policy Analysis**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY641 or PUAF641. Formerly: PUAF641.

Studies the behavior of the economy as a whole: the level of national income, unemployment, and inflation; the vulnerability of the U.S. economy to external influences; possible federal influence over the level of economic activity; and the consequences for prices, employment and the U.S. trade deficit. Also examines possible U.S. policy responses to widespread debt crises in developing countries.

0301	Uri Dadush W 4:15pm - 6:45pm	Seats (Total: 30) SQH 1103
	This section has optional online discussion sessions, Fridays, 9:15am - 10:45am.	
0401	Seth Weissman Th 4:15pm - 6:45pm	Seats (Total: 30) SQH 1103
	This section has optional online discussion sessions, Fridays, 11am - 12:30pm.	

PLCY650 **Moral Dimensions of Public Policy**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY650 or PUAF650. Formerly: PUAF650.

Explores the moral issues involved in public policy questions; the limits and usefulness of decision-making tools; problems of choosing, justifying and using criteria to judge a program's success and suitability; ethichal issues involving the welfare state and income distribution; and possible obligations beyond one's political community and generation.

Contact department for information to register for this course.

PLCY670 **Public Budgeting & Financial Management**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLYC670 or PUAF670. Formerly: PUAF670.

Covers how governments raise, spend, borrow, and manage public funds. Reviews federal,state, and local budget processes and introduces analytical techniques including basic spreadsheet skills, evaluating alternative revenue sources, revenue and expenditure forecasting, cost allocation, capital budgeting, cost-benefit analysis, discounting and present value, bond analysis, cash management and intergovernmental finance.

0101	Philip Joyce Tu 4:15pm - 6:45pm	Seats (Total: 20) SQH 1103
0201	Thomas Spreen M 1:30pm - 4:00pm	Seats (Total: 20) WDS 1114
0301	Juan Martinez Guzman W 9:15am - 11:45am	Seats (Total: 20) TMH 0102

PLCY680 **Examining Social Identity and Pluralism in Public Policy**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY680 or PLCY699D. Formerly: PLCY699D.

Understanding how groups and individuals develop and coexist in society is an essential part of public policy. Using the classroom as a laboratory, students will explore identity development and how the intersections of race, class, gender, sexual orientation, and other identities shape perceptions that inform decision-making and policy development. From historical scholars to current day movement leaders, this course equips students with tools necessary to critically analyze pluralism, power, and identity; and the skills needed to shape meaningful and equitable public policy and working and civic environments for all.

0101	Claire Dunning W 1:30pm - 4:00pm	Seats (Total: 25) TMH 0102
0201	Michael Woldemariam Tu 4:15pm - 6:45pm	Seats (Total: 25) TMH 0102

PLCY688C **Topics in Public Policy; Cyberspace: Legal and Policy Implications**

Special topics in Public Policy.

Must be in a major in School of Public Policy; or permission of the School of Public Policy.

0101	Charles Harry M 1:30pm - 4:00pm	Seats (Total: 20) KEY 0125

PLCY688N **Topics in Public Policy; Approaches to Creating Equitable Labor and Wage Practices inBusiness Organizations**

Special topics in Public Policy.

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. There are many factors that influence how much we provide in salary, wages, and benefits to the contributors or our market-based economy. Race, gender, and ethnicity have a long-standing history and a present-day relevance to the decisions that impact the availability of opportunity and reward to U.S. workers. But there are also factors that influence why we value certain occupations or functions over others. Finally, there is the role that the government plays in addressing past wrongs, in levelling the wage and salary playing fields, all while supporting strategies intended to encourage economic growth. These factors will be analyzed within the context of a seminar-styled exploration.

0101	Leonard Howie	Seats (Total: 13)
	Th 4:15pm - 6:45pm	SKN 1115

PLCY688Y **Topics in Public Policy; The Intersection of Affordable Housing, the Environment, Health and Racial Justice**

Special topics in Public Policy.

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Students will learn about current affordable housing issues in the U.S.,including but not limited to the intersection of affordable housingan d health outcomes, developing environmentally appropriate and resilient affordable housing, the rezoning of single family neighborhoods, the correlation between housing location and educational outcomes, and reducing long standing racial inequities in housing access. The course will be in a seminar format led by faculty and policy experts.

0101	MIchael Bodaken	Seats (Total: 13)
	W 1:30pm - 4:00pm	KNI 1206

PLCY689E **Public Policy Topics; Program Evaluation and Cost-Benefit Analysis**

Special Topics in Public Policy.

0101	Susan Parker	Seats (Total: 30)
	Th 9:15am - 11:45am	SQH 1103

PLCY689K **Public Policy Topics; Politics of Education**

Special Topics in Public Policy.

Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Cross-listed with TLPL687. Credit only granted for TLPL687 or PLCY689K. Educational institutions as political entities. Focuses on conceptual perspectives for examining political dynamics in governmental and organizational contexts. Provides opportunities to carry out original case studies of policy making processes at various levels of the education policy system.

0101	Meghan Comstock	Seats (Total: 20)
	Tu 1:00pm - 3:45pm	EDU 2212

PLCY689Y **Public Policy Topics; Nonprofit Fundraising**

Special Topics in Public Policy.

0101	Leslie Jefferson M 4:00pm - 6:30pm	Seats (Total: 5) ONLINE
	Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy.	
CA01	Leslie Jefferson M 4:00pm - 6:30pm	Seats (Total: 10) ONLINE
	Must be in the Nonprofit Management and Leadership graduate certificate program.	

PLCY689Z **Public Policy Topics; Strategic Management for NonProfit and Public Organizations**

Special Topics in Public Policy.

0101	Robert Sheehan Tu 6:30pm - 9:00pm	Seats (Total: 5) ONLINE
	Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy.	
CA01	Robert Sheehan Tu 6:30pm - 9:00pm	Seats (Total: 10) ONLINE
	Must be in the Nonprofit Management and Leadership graduate certificate program.	

PLCY690 **Policy Engagement Project**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY690 or PLCY699X. Formerly: PLCY699X.

Students apply skills to a real-world public policy or management issue through a policy engagement (capstone) project. Students engage an outside client to define and complete a professional project under the supervision of School faculty. The project utilizes skills and knowledge gained through SPP coursework, expands students' integrative capacity, and serves as a bridge to professional opportunities. In this first half of a two-semester course sequence, students identify a client and problem, scope and define the problem, and draw up a plan of work. They perform background research on the problem, the context and relevant substantive domains. They also develop the research methodology for their project, which could include qualitative, quantitative, mixed methods, or other approaches. Projects vary in substantive focus and may encompass policy analysis, program evaluation, management or organizational studies, or comprehensive literature reviews.

0101	Douglas Call M 7:00pm - 9:30pm	Seats (Total: 15) TMH 1301
	Evaluation-related social policy projects.	

0201	Niambi Carter Th 4:15pm - 6:45pm	Seats (Total: 15) KEY 0125
	Social policy projects. Faculty expertise in immigration/migration and race/gender policy.	
0301	David Backer Th 1:30pm - 4:00pm	Seats (Total: 15) TMH 0102
	International development and security projects.	
0311	Anand Patwardhan Th 1:30pm - 4:00pm	Seats (Total: 15) TMH 1301
	Environmental and Energy projects.	
0401	Paul Brown W 1:30pm - 4:00pm	Seats (Total: 15) TMH 1301
	Federal policymaking and policy advocacy, civic engagement, democracy reform projects.	
0521	Angela Bies Tu 4:15pm - 6:45pm	Seats (Total: 15) TMH 1301
	Evaluation, Management, Leadership Non-profit.	

PLCY692 **Leadership Principles and Practices**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY692 or PUAF692. Formerly: PUAF692.

This course will introduce leadership principles and practices to students by focussing on the theory of leadership, different leadership themes and skills, and discussions with practitioners.

Contact department for information to register for this course.

PLCY698D **Selected Topics in Public Affairs; Social Entrepreneurship**

Special topics that arise in public policy.

0101	Bethany Henderson Th 6:30pm - 9:00pm	Seats (Total: 5) ONLINE
	Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy.	
CA01	Bethany Henderson Th 6:30pm - 9:00pm	Seats (Total: 15) ONLINE
	Must be in the Nonprofit Management and Leadership graduate certificate program.	

PLCY698G **Selected Topics in Public Affairs; Government Contracting and Pricing**

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY698T **Selected Topics in Public Affairs; Managing Across Sectors**

Special topics that arise in public policy.

Restricted to PLCY majors or instructor permission.

0101	Elizabeth Duke	Seats (Total: 20)
	M 9:15am - 11:45am	TMH 0225

PLCY699F **Selected Topics Public Policy; Ethics of Public Administration**

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699G **Selected Topics Public Policy; Leadership in Groups and Organizations**

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699O **Selected Topics Public Policy; 21st Century Policy Challenges**

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY700 **Trade Policy, Geopolitics, Development and Climate**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy.

Examines challenges posed for international trade policy by geopolitical rifts, the increased weight of developing nations in the world economy, and climate deterioration. It covers the arguments for and against international trade amid polarized politics; how trade policy is made at the World Trade Organization, in Regional Deals, and in Washington, D.C; how businesses build global supply chains and deal with trade policy uncertainty; the trade policy of China and of developing nations more widely; and the role of trade and of trade policy in the fight against climate change.

0101	Uri Dadush	Seats (Total: 8)
	Th 9:15am - 11:45am	TMH 1301

PLCY711 **Public Management and Leadership**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY711 or PUAF711. Formerly: PUAF711.

Reviews the managerial, political, and ethical problems faced by public sector managers and leaders, including setting an organization's goals, obtaining and protecting a program mandate, designing a service delivery system and implementing a new program.

Contact department for information to register for this course.

PLCY717 **Federal Budgeting: Policy and Process**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY717 or PUAF717. Formerly: PUAF717.

Budgeting as a political and administrative instrument of government. Development of budgeting, the multiple uses of the budget, including role in fiscal policy and resource allocation, the roles and relationships of major participants, and effects of resource scarcity on budgeting behavior. Emphasis on the federal level.

0101	Samuel McCann	Seats (Total: 20)
	Th 7:00pm - 9:30pm	TMH 0102

PLCY720 **International Security Policy**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY720 or PUAF720. Formerly: PUAF720.

Reviews the principal features of international security as currently practiced. Traces the evolution of contemporary policy beginning with the initiation of nuclear weapons programs during World War II. Particular emphasis is given to experience of the United States and Russia, since the historical interaction between these two countries has disproportionately affected the international security conditions that all other countries now experience.

0101	Joshua Itzkowitz Shifrinson	Seats (Total: 20)
	Tu 4:15pm - 6:45pm	LEF 1201

PLCY734 **Foundations of Social Policy**

Restriction: Must be in a major in PLCY-School of Public Policy. Credit only granted for: PLCY734 or PUAF734. Formerly: PUAF734.

Provides an overview of government's role in social policy and the history of the development of federal and state policies with respect to welfare, aging, education, and housing. Analyzes current federal institutions and legislation in the same policy areas and the demographic history of the United States. Develops skills in analytic writing and presentation of descriptive data.

0201	Shanna Pearson	Seats (Total: 20)
	Tu 1:30pm - 4:00pm	LEF 1201

PLCY735 **Health Policy**

Credit only granted for: PLCY735 or PUAF735. Formerly: PUAF735.

Analyzes the origins, history, status, and future of health care as problems in political and economic theory and as puzzles in policy formation. Considers current American reform controversies in the light of several disciplines and in comparison to foreign experiences and structures.

0101	Robert Sprinkle Th 4:15pm - 6:45pm	Seats (Total: 15) TMH 1301

PLCY741 **Global Environmental Problems**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY741 or PUAF741. Formerly: PUAF741.

Suitability of analytic tools for examining global environmental problems, human overpopulation, land abuse, ozone depletion, climate change, acid rain, loss of biological diversity, the scarcity of food, fresh water, energy and nonfuel mineral resources, and health hazards of pollutants toxic metals and radiation.

0101	Anand Patwardhan W 1:30pm - 4:00pm	Seats (Total: 25) SQH 1121

PLCY744 **Environment and Development**

Credit only granted for: PLCY744 or PUAF744. Formerly: PUAF744.

Analyzes sustainable development and its conflicting interpretations. The dominant view, as expressed in the World Bank's 1992 World Development Report, is studied, along with some critical responses. Further readings on issues of population, consumption and development indicators.

0101	Thomas Hilde W 7:00pm - 9:30pm	Seats (Total: 20) TMH 0102

PLCY780 **The American Foreign Policy-Making Process**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY780 or PUAF780. Formerly: PUAF780.

Survey and analysis of the governmental institutions and processes which shape U.S. global engagement on national security and international economic issues. Particular emphasis is given to executive-congressional relations and the broader domestic roots of foreign policy.

0101	Aaron Mannes W 7:00pm - 9:30pm	Seats (Total: 20) TLF 1101

PLCY783 **Development and Foreign Aid**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY783 or PUAF783. Formerly: PUAF698Q and PUAF783.

Examines the empirical, conceptual, and ethical dimensions of international development policies and U.S. foreign aid. What is the present character of development in poor countries/regions? How should development be conceived? What development strategies are best? What is and should be the purpose of U.S. foreign aide and development assistance?

0101	Margaret Brindle Tu 7:00pm - 9:30pm	Seats (Total: 20) TMH 0102

PLCY790 **Project Course**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY790 or PUAF790. Formerly: PUAF790.

Students work at a sponsoring government agency or private firm researching problem of interest to sponsor and relevant to concentration. Emphasis on problem definition, organizing information, and both oral and written presentation of results.

Contact department for information to register for this course.

PLCY798A **Readings in Public Policy**

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798B **Readings in Public Policy**

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798M **Readings in Public Policy; Cooperative Security, Arms Control and Non-Proliferation Policy**

Guided readings for discussions on public policy.

Restricted to PLCY majors or permission of instructor

0101	Nancy Gallagher Tu 1:30pm - 4:00pm	Seats (Total: 16) TMH 1301

PLCY798Y **Readings in Public Policy; Nonprofit Management and Leadership**

Guided readings for discussions on public policy.

0101	Joannie Tremblay-Boire W 6:30pm - 9:00pm	Seats (Total: 10) ONLINE
	Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy.	
CA01	Joannie Tremblay-Boire W 6:30pm - 9:00pm	Seats (Total: 15) ONLINE
	Must be in the Nonprofit Management and Leadership graduate certificate program.	

PLCY798Z **Readings in Public Policy; Qualitative Research Methods and Public Policy**

Guided readings for discussions on public policy.

Restricted to PLCY Ph.D students or permission of the instructor.

0101	Peter Reuter M 4:15pm - 6:45pm	Seats (Total: 20) KEY 0125

PLCY898 **Pre-Candidacy Research**
Contact department for information to register for this course.

PLCY899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

PLSC Plant Sciences Fall 2023

PLSC112 **Introductory Crop Science**

Credit only granted for: PLSC101 or PLSC112 and PLSC113. Formerly: PLSC101.

Major crop plants including: anatomy, physiology, morphology, history, use, adaptation, culture, improvement and economic importance.

0101	Kayla Griffith, William Phillips MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 100) PLS 1140 ONLINE

PLSC113 **Introductory Crop Science Laboratory**

Corequisite: PLSC112 or permission of the Department of Plant Science and Landscape Architecture. Credit only granted for: PLSC101 or PLSC112 and PLSC113.

An introduction to the growth, function and identification of agronomic crops and the environment in which they are produced. This course is designed to complement the lecture material from PLSC 112.

Students must pay a $50.00 lab materials fee. Some lectures will take place in the Research Greenhouse.

0101	William Phillips, Kayla Griffith M 11:00am - 12:50pm	Seats (Total: 24) PLS 1153	Lab
0102	William Phillips, Kayla Griffith W 11:00am - 12:50pm	Seats (Total: 24) PLS 1153	Lab
0103	Kayla Griffith, William Phillips W 1:00pm - 2:50pm	Seats (Total: 24) PLS 1153	Lab
0104	Kayla Griffith, William Phillips M 1:00pm - 2:50pm	Seats (Total: 24) PLS 1153	Lab

PLSC201 **Plant Structure and Function**

Prerequisite: Minimum grade of C- in PLSC110 and PLSC111 or (PLSC112 and PLSC113); and minimum grade of C- in CHEM131 and CHEM132.

The relationship between plant structure and function and how the environment influences changes in the physiology to control higher plant growth and development are studied. Survey of the organizational structure of plants from the molecular to the morphological level and gain an understanding of how the plant functions to grow and reproduce.

Some course meetings will be held in the Research Greenhouse Complex.

0101	John Erwin	Seats (Total: 42)	
	MWF 10:00am - 10:50am	PLS 1119	

PLSC203 **Plants, Genes and Biotechnology**

Prerequisite: Minimum grade of C- in BSCI103; or minimum grade of C- in BSCI170 and BSCI171.

An overview of the history, genetics, and reproductive mechanisms for agronomic and horticultural plants that examines mechanisms of genetic improvement ranging from traditional plant breeding to tissue culture and genetic engineering. Social and political issues such as germplasm preservation and international intellectual property rights will also be discussed.

0101	Vijay Tiwari	Seats (Total: 23)	
	TuTh 2:00pm - 3:15pm	PLS 1162	

PLSC205 **Introduction to Turf Science and Management**

Credit only granted for: PLSC205 or PLSC305. Formerly: PLSC305.

Principals of turf science and culture with emphasis on turfgrass anatomy, morphology, and physiology. The role of cultural interventions in achieving specific aesthetic and functional objectives is examined for multiple turf uses. Pest problems typically encountered in turfgrass management are also covered.

0101	Mark Carroll	Seats (Total: 22)	
	MWF 1:00pm - 1:50pm	PLS 1146	
	Tu 3:00pm - 5:00pm	PBR 1102	Lab

PLSC206 **Plant Structure and Function Laboratory**

Prerequisite: PLSC201 or permission of instructor .

Provide hands-on experience for students who are concurrently taking PLSC201 or other interested students and train students how to collect quantitative data from plants and perform statistical analysis (i.e., Student's t-test and chi-square analysis) of the data using Excel. The students will also have opportunity to access and analyze biological datasets from publicly available sources to build phylogenetic trees and explore gene expression patterns.

0101	John Erwin M 3:30pm - 6:15pm	Seats (Total: 21) PLS 1153	 Lab
0102	John Erwin W 3:30pm - 6:15pm	Seats (Total: 21) PLS 1153	 Lab

PLSC215 **Food Safety from Sprout to Fruit**

Prerequisite: PLSC110 or PLSC112 or BSCI170 or NFSC112.

Foodborne illness has been linked to an impressive diversity of vegetable, herb, sprout, fruit, nut and spice crops. Food safety of fruit and vegetables requires careful interventions throughout the production chain from before the start of cultivation to post-harvest handling and food preparation to prevent contamination with foodborne viruses, bacteria or parasites. This course will discuss the various foodborne pathogens that associate with plant-based foods. The factors that can compromise the microbial safety of fresh produce will be discussed from the perspective of plant morphological characteristics and physicochemical traits to gain a better understanding of how enteric pathogens can associate with plants. We will also consider risks introduced via agricultural and harvesting practices and review recommendations for Good Agricultural Practices (GAPs) and post-harvest handling practices aimed at minimizing fresh produce contamination. We will conduct a trace-back investigation for a foodborne illness outbreak and learn the epidemiological, microbiological and genomic tools employed. The course will emphasize current industry practices, research innovations in agriculture to enhance food safety, as well as emerging threats posed by globalization, centralized food production, climate change and other modern-day challenges.

0101	Shirley Micallef Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 24) Location: TBA Location: TBA	 Discussion

PLSC253 **Woody Plants for Mid-Atlantic Landscapes I**

Prerequisite: Minimum grade of C- in PLSC110 and PLSC111.

A field and laboratory study of trees, shrubs, and vines used in ornamental plantings. Major emphasis is placed on native deciduous plant materials.

0101	Karen Petroff WF 12:00pm - 12:50pm F 1:00pm - 3:50pm	Seats (Total: 24) PLS 1140 PLS 1140	 Lab
0102	Karen Petroff WF 12:00pm - 12:50pm F 1:00pm - 3:50pm	Seats (Total: 24) PLS 1140 PLS 1153	 Lab

PLSC389 **Internship**

(Perm req)

Credit will be given for practical work carried out at one or more horticultural, agronomic, landscape industries, botanical gardens, or arboreta under formally arranged internships.

There will be two required real-time sessions, time to be determined. Prerequisite: Permission of AGNR-Plant Science & Landscape Architecture department. Restriction: Junior standing or higher. And must be in Plant Sciences program; or must be in Landscape Architecture program. Deadline to request permission to sign-up for the course is 6/16/2023. See Dr. Mark Carroll for more information. Credit will be given for practical work carried out at one or more horticultural, agronomic, landscape industries, botanical gardens, or arboreta under formally arranged internships.

0101	Mark Carroll	Seats (Total: 20)
	Meets July 5, 2023 - November 1, 2023	
	Class time/details on ELMs	ONLINE

PLSC399 **Special Problems in Plant Science**

(Perm req)

Research projects in Plant Science including field, greenhouse, laboratory, studio and/or library studies. Research is conducted under the direction of a faculty member.

Contact department for information to register for this course.

PLSC404 **Plant and Fungal Metabolism**

Prerequisite: Minimum grade of C- in BSCI170 and BSCI171; or minimum grade of C- in PLSC201 and PLSC206.

An introduction to biochemistry and metabolism in plants and fungi, covering the biosynthesis of compartments in plant and fungal cells with biological molecules such as nucleic acids, amino acids and lipids. Energy flow processes such as photosynthesis, carbohydrate metabolism and respiration, are covered in the course. The integration of different pathways in plant development and responses to environmental stresses will be discussed.

0101	Yiping Qi	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	PLS 1168

PLSC420 **Principles of Plant Pathology**

Prerequisite: Minimum grade of C- in CHEM131, CHEM132, and PLSC201; or students who have taken courses with comparable content may contact the department.

An introduction to the causal agents, nature and management of plant diseases with particular attention paid to economically important diseases of horticultural and agronomic crops.

0101	Nidhi Rawat	Seats (Total: 18)	
	TuTh 1:00pm - 2:15pm	PLS 1111	
	Tu 2:30pm - 5:15pm	PLS 1153	Lab

0102	Nidhi Rawat	Seats (Total: 18)	
	TuTh 1:00pm - 2:15pm	PLS 1111	
	Th 2:30pm - 5:15pm	PLS 1153	Lab

PLSC433 **Technology of Fruit and Vegetable Production**

Prerequisite: Minimum grade of C- in PLSC201, PLSC271, and ENST200; or students who have taken courses with comparable content may contact the department. Restriction: Junior standing or higher.

A critical analysis of research work and application of the principles of plant physiology, chemistry and botany to practical problems in the commercial production of fruit and vegetable crops.

Students must pay a $100.00 lab fee.

0101	Diana Cochran	Seats (Total: 10)	
	MW 11:00am - 12:15pm	PLS 1158	
	W 1:00pm - 4:50pm	PLS 0123	Lab

PLSC453 **Weed Science**

Weed identification, ecology, and control (cultural, mechanical, biological, and chemical methods).

Labs will also occur in the Research Greenhouse.

0101	William Phillips	Seats (Total: 24)	
	Class time/details on ELMs	ONLINE	
	Tu 9:30am - 10:45am	PLS 1125	
	Tu 11:00am - 12:50pm	PLS 1153	Lab

PLSC489E **Special Topics in Plant Science; Human Pathogens on Plants**

A lecture and or laboratory series organized to study a selected phase of Plant Science not covered by existing courses. Credit according to time scheduled and organization of the course.

Prerequisite: A microbiology course at 200 level or above; or permission of insructor. Restriction: Senior standing or Graduate students only. Fruit and vegetable crops harboring enteric pathogens such as Salmonella enterica, Shiga toxin-producing Escherichia coli (STEC) and Cyclospora cause thousands of foodborne illnesses and millions of dollars in financial losses a year. Enteric bacteria, viruses and parasites use various strategies to persist in the plant niche to pose a food safety risk to consumers. This course will discuss these microbial strategies, and how enteric bacteria colonize and internalize in plants. We will also examine plant recognition of bacteria and the ensuing bacterial response in enterobacterial-plant interactions. Finally, we will explore crop microbiome studies to understand connectivity in the food production chain to understand human pathogen dissemination in crop systems.

0101	Shirley Micallef	Seats (Total: 12)	
	W 3:00pm - 4:50pm	PLS 1125	

PLSC489R **Special Topics in Plant Science; Data Wrangling and Visualization with R**

A lecture and or laboratory series organized to study a selected phase of Plant Science not covered by existing courses. Credit according to time scheduled and organization of the course.

Students will learn the fundamentals of using R to handle, summarize and plot data in ways that are repeatable and transparent through a combination of lecture, hands-on demonstrations, and exercises. Using the approaches and philosophy of the Tidyverse you will learn workflow and coding habits that will help transform your ability to understand your data and communicate it to others. Through this course you will be fluent in the basic vocabulary and grammar of R.

0101	Maile Neel MW 9:00am - 10:50am	Seats (Total: 23) PLS 2137

PLSC608 **Research Methods**

(Perm req)

An overview of research methods and applications related to plant sciences. Topics covered include current research advances, professional conduct and ethics, and preparation of grant proposals, manuscripts, and scientific presentations.

Prerequisite: permission of department. Repeatable to 6 credits if content differs. Credit will be granted for only one of the following: AGRO608, NRSC608, or PLSC608. Formerly NRSC608.

0101	Shunyuan Xiao, James Culver M 3:30pm - 5:30pm	Seats (Total: 20) PLS 1162

PLSC608T **Research Methods; Supervised Teaching**

(Perm req)

An overview of research methods and applications related to plant sciences. Topics covered include current research advances, professional conduct and ethics, and preparation of grant proposals, manuscripts, and scientific presentations.

Prerequisite: permission of department.

0104	Mark Carroll Contact instructor or department for details.	Seats (Total: 5)
4401	William Phillips Contact instructor or department for details.	Seats (Total: 5)
7501	Wendy Peer Contact instructor or department for details.	Seats (Total: 5)

PLSC799 **Master's Thesis Research**
Contact department for information to register for this course.

PLSC898 **Pre-Candidacy Research**

Contact department for information to register for this course.

PLSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

PORT Portuguese Fall 2023

PORT103 **Intensive Elementary Portuguese**

Prerequisite: Must have appropriate World Language Placement Test (WLPT) score. Credit only granted for: PORT103 or PORT104. Formerly: PORT104.

Covers speaking, reading, writing, listening, and culture of Portuguese-speaking world.

0101	Barbara Zocal Da Silva TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 18) JMZ 1120 SQH 1105

PORT205 **Intermediate Reading and Conversation in Portuguese I**

Prerequisite: PORT203; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Development of spoken Portuguese at intermediate level based on written assignments and exams on readings in a variety of genres.

0101	Barbara Zocal Da Silva TuTh 3:30pm - 4:45pm	Seats (Total: 15) JMZ 3203

PORT234 **Issues in Latin American and Caribbean Studies I**

Cross-listed with: LACS234, SPAN234. Credit only granted for: LASC234, PORT234, SPAN234, or LACS234. Formerly: LASC234.

Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions. Taught in English.

0101	Francisco Barrenechea MW 3:30pm - 4:45pm	Seats (Total: 30) SQH 1119
0102	Juan Diaz TuTh 2:00pm - 3:15pm	Seats (Total: 25) CCC 1105

PORT386 **Experiential Learning**

(Perm req)

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department; and junior standing or higher.

Contact department for information to register for this course.

PORT399 **Independent Study in Portuguese**

(Perm req)

Specific readings in literature under the supervision of a faculty member of the department.

Contact department for information to register for this course.

PORT409A **Special Topics in Brazilian Literature; Tropical Dreams: Nature and Art in Brazil**

Major themes and literary development from the late eighteenth century to the present. Specific topic to be announced each time the course is offered.

Cross-listed with LACS448Y, SPAN408O, and SPAN609A. Credit only granted for PORT409A, LACS448Y, SPAN408O, or SPAN609A. Interdisciplinary examination of tropicality and nature tropes that have shaped current cultural, political, and environmental debates in Brazil. Taught in English.

0101	Thayse Leal Lima TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMZ 0125	

PORT699 **Independent Study of Portuguese**

This course is designed to provide graduate students an opportunity to pursue independent study under the supervision of a member of the department.

Contact department for information to register for this course.

PSYC Psychology Fall 2023

The Department of Psychology enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course.

PSYC100 **Introduction to Psychology**

A basic introductory course intended to bring the student into contact with the major problems confronting psychology and the more important attempts at their solution.

Discussion sections do not meet until after first lecture. Research requirement: may involve participation in research.

Click here for more course information.

0101	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 8:00am - 8:50am Class time/details on ELMs	Seats (Total: 30) BRB 1101 ONLINE BPS 1232 ONLINE	 Discussion Discussion

0102	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 11:00am - 11:50am	ATL 1434	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0103	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 11:00am - 11:50am	PHY 0405	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0104	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 2:00pm - 2:50pm	BPS 1232	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0105	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 3:00pm - 3:50pm	ATL 2416	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0106	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 8:00am - 8:50am	HBK 0123	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0107	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 11:00am - 11:50am	HBK 1108	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0108	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 11:00am - 11:50am	BPS 1228	Discussion
	Class time/details on ELMs	ONLINE	Discussion

0109	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm Class time/details on ELMs F 2:00pm - 2:50pm Class time/details on ELMs	BRB 1101 ONLINE HBK 0123 ONLINE	 Discussion Discussion
0110	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm Class time/details on ELMs F 3:00pm - 3:50pm Class time/details on ELMs	BRB 1101 ONLINE ATL 2330 ONLINE	 Discussion Discussion
0201	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm Class time/details on ELMs F 9:00am - 9:50am Class time/details on ELMs	BRB 1101 ONLINE BPS 1232 ONLINE	 Discussion Discussion
0202	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm Class time/details on ELMs F 10:00am - 10:50am Class time/details on ELMs	BRB 1101 ONLINE HBK 1108 ONLINE	 Discussion Discussion
0203	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm Class time/details on ELMs F 11:00am - 11:50am Class time/details on ELMs	BRB 1101 ONLINE HBK 1112 ONLINE	 Discussion Discussion
0204	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm Class time/details on ELMs F 12:00pm - 12:50pm Class time/details on ELMs	BRB 1101 ONLINE HBK 0123 ONLINE	 Discussion Discussion
0205	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm Class time/details on ELMs F 3:00pm - 3:50pm Class time/details on ELMs	BRB 1101 ONLINE HBK 0123 ONLINE	 Discussion Discussion

0206	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 9:00am - 9:50am	HBK 0123	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0207	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 10:00am - 10:50am	ATL 2330	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0208	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 11:00am - 11:50am	ATL 2416	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0209	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 12:00pm - 12:50pm	BPS 1232	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0210	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 3:00pm - 3:50pm	BPS 1232	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0301	Dirk Parham	Seats (Total: 50)	
	MW 2:00pm - 2:50pm	ONLINE	
	Class time/details on ELMs	ONLINE	
0401	Dirk Parham	Seats (Total: 50)	
	TuTh 11:00am - 12:15pm	ONLINE	
0501	Dirk Parham	Seats (Total: 50)	
	TuTh 3:30pm - 4:45pm	ONLINE	

FC01	Heather Ganginis DelPino F 1:00pm - 2:40pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 30) BPS 1238 ONLINE	Discussion
FC02	Heather Ganginis DelPino TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) SQH 1119	
FC03	Joseph Barnet MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ESJ 1309	
FC04	Joseph Barnet MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ESJ 1309	

PSYC123 **The Psychology of Getting Hired**

Restriction: Must not be in a Robert H. Smith School of Business degree program. Additional information: Cannot be used in place of BMGT367 toward a degree program in the Robert H. Smith School of Business.

Designed to introduce students to the science behind the hiring process and to prepare individuals with the academic and practical training required. Together we will explore psychological principles that influence the selection process and how individuals can apply them for the competitive edge that makes others Fear the Turtle!

0101	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	
0201	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	
0301	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	

PSYC200 **Statistical Methods in Psychology**

Prerequisite: PSYC100; and 1 course with a minimum grade of C- from (STAT100, MATH107, MATH111, MATH120, MATH130, MATH136, or MATH140).

A basic introduction to quantitative methods used in psychological research.

Restricted to PSYC, ENSP, BSCI, and NEUR majors.

0101	Tracy Tomlinson	Seats (Total: 28)	
	TuTh 8:00am - 9:15am	JMZ 0220	
	M 9:00am - 9:50am	BPS 1232	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0102	Tracy Tomlinson	Seats (Total: 28)	
	TuTh 8:00am - 9:15am	JMZ 0220	
	M 10:00am - 10:50am	ATL 2330	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0103	Tracy Tomlinson	Seats (Total: 28)	
	TuTh 8:00am - 9:15am	JMZ 0220	
	M 12:00pm - 12:50pm	BPS 1234	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0104	Tracy Tomlinson	Seats (Total: 28)	
	TuTh 8:00am - 9:15am	JMZ 0220	
	M 2:00pm - 2:50pm	BPS 1228	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0105	Tracy Tomlinson	Seats (Total: 28)	
	TuTh 8:00am - 9:15am	JMZ 0220	
	M 1:00pm - 1:50pm	ATL 2330	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0201	Tracy Tomlinson	Seats (Total: 28)	
	TuTh 9:30am - 10:45am	JMZ 0220	
	M 9:00am - 9:50am	HBK 0123	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0202	Tracy Tomlinson	Seats (Total: 28)	
	TuTh 9:30am - 10:45am	JMZ 0220	
	M 10:00am - 10:50am	BPS 1232	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0203	Tracy Tomlinson	Seats (Total: 28)	
	TuTh 9:30am - 10:45am	JMZ 0220	
	M 11:00am - 11:50am	HBK 0123	Discussion
	Class time/details on ELMs	ONLINE	Discussion

0204	Tracy Tomlinson TuTh 9:30am - 10:45am M 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 28) JMZ 0220 HBK 1112 ONLINE	 Discussion Discussion
0205	Tracy Tomlinson TuTh 9:30am - 10:45am M 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 28) JMZ 0220 HBK 0123 ONLINE	 Discussion Discussion

PSYC210 **Personality and Temperament: Developmental Origins, Brain Bases, and Clinical Implications**

Prerequisite: PSYC100. Restriction: Must be in Psychology program.

What is known about what makes each of us unique? How do these differences contribute to enduring differences in health & wealth? We will review recent research in humans and non-humans aimed at understanding the psychological & biological mechanisms underlying stable individual differences in personality. We will discuss the phylogenetic and ontogenetic origins of temperament, measurement issues, fundamental dimensions of personality across the lifespan, neurobiological substrates of temperament/personality, mechanisms contributing to stability and change, implications for psychopathology, & broader implications for public/macroeconomic policy.

0101	Yi Wei TuTh 11:00am - 12:15pm	Seats (Total: 60) MMH 1400	

PSYC221 **Social Psychology**

Prerequisite: PSYC100.

The influence of social factors on the individual and on interpersonal behavior. Includes topics such as conformity, attitude change, personal perception, interpersonal attraction, and group behavior.

0101	Abigail Nicolas MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 150) BPS 1250 BPS 1250	 Discussion
0201	Joseph Barnet TuTh 11:00am - 12:15pm	Seats (Total: 150) JMZ 0220	
0301	Dirk Parham TuTh 9:30am - 10:45am	Seats (Total: 45) ONLINE	
0401	Dirk Parham TuTh 12:30pm - 1:45pm	Seats (Total: 45) ONLINE	

0501	Dirk Parham	Seats (Total: 50)	
	Class time/details on ELMs	ONLINE	
FC01	Abigail Nicolas	Seats (Total: 30)	
	Tu 4:30pm - 5:45pm	PHY 0405	
	F 11:30am - 12:45pm	ONLINE	Discussion
	Class time/details on ELMs	ONLINE	Discussion
	Restricted to students in Freshmen Connection.		

PSYC232 **Psychology of Racism**

Restriction: Limited to Psychology majors; if spaces remain in the course, will open to all majors.

Explores the causes, correlates, and consequences of racial prejudice in the United States and other national contexts. Using lecture, readings, and discussion, we will examine the psychological theory and research on what processes underlie and motivate racial prejudice; how racial prejudice is experienced by its targets; how racial prejudice pervades our culture and social institutions; and how racial prejudice is learned, maintained, and ultimately changed.

0101	Linda Zou	Seats (Total: 40)
	MW 3:00pm - 4:15pm	BPS 1238

PSYC234 **Living the Good Life: The Psychology of Happiness**

Credit only granted for: PSYC234 or PSYC289D. Formerly: PSYC289D.

What are the secrets to living a happy life? Can happiness be found within the context of war, a depressed economy, violence and other major stressors? Are some people born happier than others? This course will teach you the scientific process that psychologists use to study happiness (and related emotional variables) and give you the opportunity to practice applying that process in a number of ways. You will learn how we (a) gather and critically evaluate research findings in the existing literature, (b) integrate those findings into coherent and testable theories, (c) design and conduct valid scientific research that tests those theories and extends our knowledge, and (d) effectively communicate our theories and findings to a wide range of audiences. The result of the process is a more accurate and objective understanding of happiness, and that is what prepares you to apply your scientific understanding to explain and influence a wide range of outcomes.

0101	Carole Sebenick	Seats (Total: 139)
	TuTh 2:00pm - 3:15pm	KEY 0106
0201	Carole Sebenick	Seats (Total: 78)
	TuTh 9:30am - 10:45am	SHM 2102

FC01	Heather Ganginis DelPino TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) SQH 1103	

PSYC262 **Asian American Psychology**

Cross-listed with: AAST262. Credit only granted for: PSYC262, AAST262 or PSYC489Z. Formerly: PSYC489Z.

An overview of how socio-cultural influences impact the development and psychological health of Asian Americans. Other topics include how minority group status, adaptation and identity development influence various aspects of psychological functioning; the role of historic systematic racism; and, how the COVID-19 pandemic has negatively impacted Asian Americans. Students develop a deeper understanding of the role of stereotypes and racism, acculturation, racial identity development, cultural values, gender socialization, behavioral norms, family roles, stressors and social support systems on the mental health, well-being and health of Asian Americans.

0101	Derek Iwamoto TuTh 12:30pm - 1:45pm	Seats (Total: 59) TYD 1102	

PSYC300 **Research Methods in Psychology Laboratory**

Prerequisite: PSYC200. Restriction: Must be in Psychology program.

A general introduction and overview to the fundamental theoretical, conceptual, and practical issues in psychological research in both the laboratory and the field.

Restricted to PSYC and NEUR majors only.

0101	Amanda Chicoli MW 10:00am - 10:50am F 4:00pm - 5:50pm	Seats (Total: 16) JMZ 0220 BPS 1232	Discussion
0102	Amanda Chicoli MW 10:00am - 10:50am Th 4:00pm - 5:50pm	Seats (Total: 16) JMZ 0220 JMZ 0125	Discussion
0103	Amanda Chicoli MW 10:00am - 10:50am W 4:00pm - 5:50pm	Seats (Total: 16) JMZ 0220 ATL 2352	Discussion
0104	Amanda Chicoli MW 10:00am - 10:50am Th 4:00pm - 5:50pm	Seats (Total: 16) JMZ 0220 JMZ 0208	Discussion

0105	Amanda Chicoli MW 10:00am - 10:50am F 4:00pm - 5:50pm	Seats (Total: 16) JMZ 0220 BPS 1234	Discussion
0106	Amanda Chicoli MW 10:00am - 10:50am W 4:00pm - 5:50pm	Seats (Total: 16) JMZ 0220 PLS 1146	Discussion
0201	Ana Navarro Cebrian TuTh 9:30am - 10:45am Th 4:00pm - 5:50pm	Seats (Total: 16) CCC 1100 HBK 0125	Discussion
0202	Ana Navarro Cebrian TuTh 9:30am - 10:45am F 10:00am - 11:50am	Seats (Total: 16) CCC 1100 ATL 2352	Discussion
0203	Ana Navarro Cebrian TuTh 9:30am - 10:45am F 12:00pm - 1:50pm	Seats (Total: 16) CCC 1100 PLS 1158	Discussion
0204	Ana Navarro Cebrian TuTh 9:30am - 10:45am F 2:00pm - 3:50pm	Seats (Total: 16) CCC 1100 BPS 1228	Discussion
0205	Ana Navarro Cebrian TuTh 9:30am - 10:45am W 4:00pm - 5:50pm	Seats (Total: 16) CCC 1100 BPS 1228	Discussion
0206	Ana Navarro Cebrian TuTh 9:30am - 10:45am F 12:00pm - 1:50pm	Seats (Total: 16) CCC 1100 PLS 1162	Discussion
0301	Jacob Coutts Class time/details on ELMs W 2:00pm - 3:50pm	Seats (Total: 16) ONLINE PLS 1146	Discussion
0302	Jacob Coutts Class time/details on ELMs F 2:00pm - 3:50pm	Seats (Total: 16) ONLINE PLS 1172	Discussion

0303	Jacob Coutts Class time/details on ELMs F 2:00pm - 3:50pm	Seats (Total: 16) ONLINE PLS 1146	Discussion
0304	Jacob Coutts Class time/details on ELMs F 2:00pm - 3:50pm	Seats (Total: 16) ONLINE PLS 1158	Discussion

PSYC302 **Fundamentals of Learning and Behavior**

Prerequisite: PSYC100, BSCI170, and BSCI171. Restriction: Restricted to psychology majors during the registration period; all other majors will be placed on a hold file.

Overview of the fundamental types of learning that occur without formal instruction. The course covers fundamentals of classical and instrumental conditioning as studied in a variety of species in addition to more modern theories of learning. We will then explore how these principles influence diverse processes such as memory, attention, extinction, categorization, motivation, and in some cases, how they are implemented in the brain and disrupted in disease.

0101	Amanda Chicoli TuTh 2:00pm - 3:15pm	Seats (Total: 60) MCB 1207	

PSYC303 **Professional Development for Psychology Majors**

Prerequisite: PSYC123; or permission from the instructor with a completed resume. Restriction: Must have earned a minimum of 60 credits; and must be in the Psychology major.

An investigation of various career and graduate school opportunities available to psychology majors. Students will learn about a wide range of career fields, will learn how to utilize available resources to pursue career goals, and will take steps to advance their professional identity and development.

0101	Laila Asi Class time/details on ELMs	Seats (Total: 50) ONLINE	

PSYC304 **Biological Psychology**

Prerequisite: PSYC100, BSCI170 and BSCI171; or equivalent. Credit only granted for: PSYC301 or PSYC304. Formerly: PSYC301.

Biological Psychology is the study of the physiological basis of behavior. In this course, we will first cover the basic principles of brain organization and neural transmission. We will then introduce traditional and modern research techniques in the field of behavioral neuroscience. The last portion of the course focuses on specific topics including psychopharmacology, learning and memory, emotion, stress, drug of abuse, neurological disorders (e.g., Alzheimer's disease and Parkinson's disease) and schizophrenia.

0101	Anna Li TuTh 9:30am - 10:45am	Seats (Total: 117) ATL 2324

PSYC309R **Special Topics in Psychology; PREP for Research**

(Perm req)

Topics of current interest which represent extensions of or additions to topics covered in more general topical courses.

0101	Nazish Salahuddin W 1:00pm - 1:50pm	Seats (Total: 25) BPS 1234

PSYC330 **Child Psychopathology**

Prerequisite: PSYC100. Restriction: Must be in Psychology program. Credit only granted for: PSYC309B or PSYC330. Formerly: PSYC309B.

Etiology, diagnosis, prevention and treatment of emotional disorders of childhood and adolescence.

0101	Andrea Chronis-Tuscano TuTh 11:00am - 12:15pm	Seats (Total: 100) BPS 1243

PSYC332 **Psychology of Human Sexuality**

Prerequisite: PSYC100.

A survey of historical and contemporary psychological views on a wide variety of sexual behaviors; theory and research bearing on the relationship between life span psychological development, psychological functioning, interpersonal processes and sexual behaviors; political and social issues involved in current sexual norms and practices.

Contact department for information to register for this course.

PSYC336 **Psychology of Women**

Prerequisite: PSYC100. Cross-listed with: WGSS336. Credit only granted for: PSYC336, WMST336 or WGSS 336. Formerly: WMST336.

A study of the biology, life span development, socialization, personality, mental health, and special issues of women.

Note: Students will be expected to engage in asynchronous coursework Friday's during the semester.

0101	Monica Kearney MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 110) PHY 1410 ONLINE

PSYC338D **Special Topics in Study Abroad III; Developmental Disorders**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338L **Special Topics in Study Abroad III; Dynamic Project Leadership**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338N **Special Topics in Study Abroad III; Neuroscience of Fear**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338P **Special Topics in Study Abroad III; Positive Psychology**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC341 **Introduction to Memory and Cognition**

Prerequisite: PSYC200 and PSYC300.

An introduction to the basic concepts of cognitive psychology, the scientific study of mental processes. Topics will include perception, attention, memory, reasoning, and language, with an emphasis on how findings from cognitive psychology can inform real-life thinking (e.g., memory strategies for studying, pitfalls of multitasking, and how/why our memories can fail us).

0101	Robert Slevc	Seats (Total: 117)
	TuTh 12:30pm - 1:45pm	BPS 1250

PSYC344 **Health Psychology**

Prerequisite: PSYC100; or permission of instructor. Restriction: Must be in the Psychology program; or must be in a major within the School of Public Health; or permission of instructor. Credit only granted for: PSYC489U or PSYC344. Formerly: PSYC489U.

An examination of how psychological, biological, and social factors impact physical health and well-being. Students will use the biopsychosocial model to analyze topics including stress, health disparities, pain, addiction, disease states (e.g., cardiovascular disease, diabetes, cancer), and primary prevention.

0101	Angelica Eddington	Seats (Total: 75)
	TuTh 5:15pm - 6:30pm	BPS 1243

PSYC353 **Adult Psychopathology**

Prerequisite: PSYC100. Restriction: Must be in Psychology program.

The nature, diagnosis, etiology, and treatment of mental disorders.

0101	Susanna Crowell McQuarrie	Seats (Total: 117)
	TuTh 8:00am - 9:15am	JMP 3201

PSYC354 **Multicultural Psychology in the U.S.**

Prerequisite: PSYC100.

What are the psychological implications of racism, sexism, homophobia and other structures of inequality in the United States? How do socio-cultural privilege and oppression influence individual and group thoughts, feelings, and behaviors? This course will take a current events focus to understanding multicultural and social justice issues in psychology with an emphasis on self-reflection, mental health, cross-cultural communication, and strategies for social change.

Note: Students will be expected to engage in asynchronous coursework Friday's during the semester.

0101	Monica Kearney MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 150) BPS 1250 ONLINE

PSYC355 **Developmental Psychology**

Prerequisite: PSYC100.

Survey of research and theory of psychological development from conception through childhood, stressing physiological, conceptual and behavioral changes, and the social and biological context in which individuals develop.

0101	Fanita Tyrell TuTh 11:00am - 12:15pm	Seats (Total: 200) HJP 0226

PSYC356 **Psychology of Adolescence**

Prerequisite: PSYC100.

A description of adolescent development based on research and theory interrelating psychological, intellectual, and social changes during the teen years and the systems dealing with those changes.

Contact department for information to register for this course.

PSYC361 **Survey of Industrial and Organizational Psychology**

Prerequisite: PSYC100.

A general survey of the field of industrial organizational psychology including such topics as organizational entry (recruitment, selection, training, socialization); organizational psychology (motivation, leadership, job attitudes); productivity in the workplace (performance appraisal, absenteeism, turnover), and the role that the larger environment plays in influencing work behaviors and work attitudes.

0101	James Grand TuTh 9:30am - 10:45am	Seats (Total: 75) ESJ 2204

PSYC381 **Community Interventions: Domestic Violence I**

Prerequisite: PSYC100. Restriction: Preference given to majors in Human Development, Psychology, and Women, Gender and Sexuality Studies. Credit only granted for: PSYC318D, PSYC381, WMST498A or WGSS498A. Formerly: PSYC318D. Additional information: Students who successfully complete this course may be eligible to enroll in PSYC319 - a service learning class in which students volunteer in the community to work with children who have experienced domestic violence and/or homelessness.

Study theories and research related to the dynamics and effects of intimate partner violence on women and children. Learn about community resources and interventions for survivors of domestic violence. Examine theoretical writings and research findings regarding the effects of gender, culture, race/ethnicity, and socioeconomic status on the experiences of intimate partner violence survivors and their children.

0101	Karen O'Brien	Seats (Total: 35)
	MW 10:00am - 11:15am	HBK 0103

PSYC389 **Experiential Learning**

(Perm req)

Internship in psychology-related fields.

A course for undergraduate psychology majors to earn academic credit for an approved psychology-related internship experience. Information about the course may be obtained in BPS1121, or by contacting the instructor. Restricted to PSYC majors only.

0101	Steven Young	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

PSYC403 **Animal Behavior**

Prerequisite: PSYC202 or NEUR200.

Reviews the theoretical framework underlying the study of animal behavior. The genetic, hormonal and physiological basis of behavior, and the relation to ecological and evolutionary processes will be discussed using examples that range from invertebrate animals to humans.

Restricted to PSYC and NEUR majors only.

Contact department for information to register for this course.

PSYC404 **Introduction to Behavioral Pharmacology**

Prerequisite: PSYC202 or NEUR200. Restriction: Must be in Psychology program.

Theoretical viewpoints on the interaction of drugs and behavior. Basic principles of pharmacology, the effects of drugs on various behaviors, experimental analysis of drug dependence and abuse, and neuropharmacology and behavior.

Restricted to PSYC and NEUR majors only.

0101	Ana Navarro Cebrian TuTh 11:00am - 12:15pm	Seats (Total: 50) CCC 1111	

PSYC407 **Behavioral Neurobiology Laboratory**

Prerequisite: PSYC300; and (PSYC202 or NEUR200). Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits.

In this lab course, you will collect behavioral and physiological data in humans using classic behavioral paradigms, design models of neural circuits that can explain those behaviors, record neural activity from the roach, and write lab reports describing your results and how they relate to patients with psychiatric illnesses.

0101	Matthew Roesch M 9:00am - 9:50am W 9:00am - 12:00pm	Seats (Total: 8) BPS 1228 BPS 0263	 Lab
0201	Matthew Roesch M 9:00am - 9:50am F 9:00am - 12:00pm	Seats (Total: 8) BPS 1228 BPS 0263	 Lab
0301	Matthew Roesch M 9:00am - 9:50am F 1:00pm - 4:00pm	Seats (Total: 8) BPS 1228 BPS 0263	 Lab

PSYC409 **Topics in Neurosciences Seminar**

(Perm req)

Current research in neurosciences will be presented, read, and discussed. Emphasis will change each term.

For students in the neuroscience minor. Research presentations on selected topics in neuroscience. Review and discussion of background readings related to research presentations take place on alternate weeks. Restricted to students in the neuroscience minor.

0101	Amanda Chicoli W 3:00pm - 4:50pm	Seats (Total: 40) SPH 0308	

PSYC411 **Introduction to Functional Magnetic Resonance Imaging**

Prerequisite: PSYC200 and PSYC300; and (PSYC202 or NEUR200). Restriction: Must be in a major within BSOS-Psychology department. Credit only granted for: NACS728F or PSYC411.

An introduction to functional magnetic resonance imaging (fMRI). Students will be taught about formulating testable hypotheses with fMRI, utilizing basic methods in fMRI studies, and understanding existing limitations of fMRI studies in the literature.

0101	Luiz Pessoa TuTh 11:00am - 12:15pm	Seats (Total: 30) CHE 2136

PSYC414 Science of Sleep and Biological Rhythms

Prerequisite: PSYC301, PSYC202, or NEUR200; or permission of instructor. Restriction: Must be in a major within the BSOS-Psychology department; and restricted to psychology majors during the registration period.

Sleep is a powerful, inescapable, misunderstood, and mysterious presence in our lives. The course will begin with a review of the basics of sleep and biological rhythms with a focus on the underlying neurobiology. The bulk of the semester will be in-depth discussions of topics in sleep and circadian rhythms primarily chosen by the students. A few examples: narcolepsy, sleep in primitive cultures, lucid dreaming, racial and cultural differences in sleep and sleep disorders, the biology of sleep and circadian rhythms during adolescence, CNS control of dreaming, sleep and states of consciousness, sleeping to remember vs. sleeping to forget, legal ramifications of parasomnias, e.g. sleepwalking, and the relationships between sleep deprivation and obesity.

0101	David Yager MWF 9:00am - 9:50am	Seats (Total: 30) TWS 0205

PSYC417 Data Science for Psychology and Neuroscience Majors

Prerequisite: PSYC200 and PSYC300; and (MATH120, MATH130, or MATH140). Credit only granted for: PSYC489D or PSYC417. Formerly: PSYC489D.

A large number of industry and academic jobs require basic programming and data analysis skills. This class represents an introduction to both. Students will learn to program in R and will briefly be introduced to Python, the two most popular programming languages for data science. Common constructs shared by a variety of procedural programming languages will be emphasized. Basic statistics and probability theory will be reviewed from a computational perspective, and more advanced topics introduced. During the course, students will simulate toy data sets which they will then analyze knowing how the data came about, as well as work with real data. The class is highly hands-on with a large number of in-class lab and homework projects. Expect to work a lot and move quickly. Because of the hands-on nature of the class, the overall focus is more on application and execution rather than theory. However, some theory is covered at a high level so that students are aware of why they are doing something, rather than mindlessly writing code.

Restricted to PSYC and NEUR majors only.

0101	Yuqing Lei MW 1:00pm - 3:00pm	Seats (Total: 24) ATL 1410
0201	Caroline Charpentier TuTh 12:30pm - 2:30pm	Seats (Total: 24) PLS 1129

PSYC420 Experimental Psychology: Social Psychology Laboratory

Prerequisite: PSYC300 and PSYC221. Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits.

A laboratory course to provide a basic understanding of experimental methods in social psychology and experience in conducting research on social processes.

0101	Edward Lemay MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 15) HBK 0115 LEF 0225	 Lab
0102	Edward Lemay MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 15) HBK 0115 LEF 0225	 Lab
0201	Edward Lemay MW 11:00am - 11:50am Th 2:00pm - 3:50pm	Seats (Total: 15) HBK 1112 LEF 0231	 Lab
0202	Edward Lemay MW 11:00am - 11:50am Th 2:00pm - 3:50pm	Seats (Total: 15) HBK 1112 LEF 0231	 Lab

PSYC425 **Psychology and Law**

Prerequisite: PSYC100, PSYC200, and PSYC300. Restriction: Must be in Psychology program. Credit only granted for: PSYC325, or PSYC425.

An introduction to the intersection of psychology and the criminal justice system, known as the field of legal psychology. The material covered will span the course of the criminal justice process and examine each aspect from a psychological perspective beginning with profiling and moving on to eyewitness memory and judgements through perpetrator memories and interrogation techniques. These aspects will be evaluated with a research lens as well as an applied outlook.

0101	Tracy Tomlinson TuTh 12:30pm - 1:45pm	Seats (Total: 30) PLS 1119

PSYC432 **Counseling Psychology: Theories, Research, and Practice**

Prerequisite: PSYC200.

Analysis of research and intervention strategies developed and used by counseling psychologists. Historical and current trends in content and methodology.

Note: Students will be expected to engage in asynchronous coursework Friday's during the semester.

Click here for sample course syllabus.

0101	Erin Hill MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 75) CCC 1100 ONLINE	 Discussion
0201	Monica Kearney MW 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 75) CCC 1205 ONLINE	 Discussion

PSYC433 **Basic Helping Skills: Research and Practice**

Prerequisite: PSYC300. Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits; and must not have completed or be concurrently enrolled in EDCP 310. Credit only granted for: EDCP210, EDCP310, or PSYC433.

Theories and research regarding effective helping relationships, with a focus on applications to counseling and psychotherapy. Students will practice helping skills with each other and will conduct research projects evaluating their helping skills. Students should be willing to talk about personal issues in class. Attendance in labs is mandatory and contributes to the course grade; thus, students should only enroll in a lab section that they will be able to attend consistently.

0101	Terrill Taylor Tu 2:00pm - 3:50pm W 9:00am - 10:50am	Seats (Total: 12) ARM 0135 BPS 1232	 Lab
0102	Terrill Taylor Tu 2:00pm - 3:50pm W 11:00am - 12:50pm	Seats (Total: 12) ARM 0135 BPS 1232	 Lab
0103	Terrill Taylor Tu 2:00pm - 3:50pm Th 4:00pm - 5:50pm	Seats (Total: 12) ARM 0135 BPS 1234	 Lab
0104	Terrill Taylor Tu 2:00pm - 3:50pm W 3:00pm - 4:50pm	Seats (Total: 12) ARM 0135 BPS 1234	 Lab
0105	Terrill Taylor Tu 2:00pm - 3:50pm Th 2:00pm - 3:50pm	Seats (Total: 12) ARM 0135 BPS 1234	 Lab
0106	Terrill Taylor Tu 2:00pm - 3:50pm F 9:00am - 10:50am	Seats (Total: 12) ARM 0135 BPS 1234	 Lab

0107	Terrill Taylor Tu 2:00pm - 3:50pm F 11:00am - 12:50pm	Seats (Total: 12) ARM 0135 BPS 1234	 Lab
0108	Terrill Taylor Tu 2:00pm - 3:50pm F 1:00pm - 2:50pm	Seats (Total: 12) ARM 0135 BPS 1234	 Lab
0109	Terrill Taylor Tu 2:00pm - 3:50pm F 1:00pm - 2:50pm	Seats (Total: 12) ARM 0135 BPS 1236	 Lab

PSYC436 **Introduction to Clinical Psychology: From Science to Practice**

Prerequisite: PSYC300.

Critical analysis of clinical psychology, with particular emphasis on current developments and trends.

0101	Angelica Eddington Tu 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 75) PLS 1140 ONLINE	

PSYC437 **The Assessment and Treatment of Addictive Behaviors**

Prerequisite: PSYC100; and 9 credits in PSYC courses.

Explores the current research in assessment and treatment of addictive behaviors. Topics may include addictions in the areas of alcohol, drugs, nicotine, gambling, and eating.

This course focuses on issues surrounding diversity and the interactions of stigmatized and non-stigmatized individuals, with an emphasis on the context of work. We will cover issues related to diversity and discri- mination from several different perspectives, including: the person(s) being stigmatized, the person(s) doing the stigmatizing, the bystander(s) witnessing stigmatization of others, and the organization.

0101	Edward Bernat MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 50) ATL 1113 ONLINE	
0201	Edward Bernat MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 80) ATL 1113 ONLINE	

PSYC440 **Experimental Psychology: Cognitive Processes and Legal Applications**

Prerequisite: PSYC100, PSYC200, PSYC300 and PSYC341. Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits.

A survey of the content, models, and methods in cognitive psychology with an emphasis on attention and encoding, recall, recognition, judgment, signal detection theory, and applying cognitive theories to situations in the legal system. Students integrate scientific theories with real-life legal situations. Course topics include research methodology in assessing and addressing cognitive mechanisms and how this understanding may help eyewitness and victim recall and recognition, perpetrator recall, assessing scientific theories of repression, and real life examples.

0101	Tracy Tomlinson	Seats (Total: 24)	
	TuTh 2:00pm - 3:15pm W 1:00pm - 2:50pm	PLS 1113 ATL 2330	 Lab

PSYC442 **Psychology of Language**

Prerequisite: PSYC300 and PSYC341. Restriction: Must be in Psychology program.

Introductory survey of the psychology of language, focusing on the cognitive processes that enable us to produce and understand language. Topics include speech perception, speech production, syntactic processing, language development, language disorders, and the brain bases of language.

Contact department for information to register for this course.

PSYC447 **Diversity in Organizations**

Prerequisite: PSYC300. Credit only granted for: PSYC489E or PSYC447. Formerly: PSYC489E.

Overview and active discussion of issues related to diversity and discrimination in organizations from several different perspectives, including: the person(s) being stigmatized, the person(s) doing the stigmatizing, the bystander(s) witnessing stigmatization of others, and the organization. Course readings address each of these perspectives, along with an introductory unit that outlines key concepts of diversity.

0101	Jennifer Wessel	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	ASY 3207

PSYC450 **Applying Psychology to the Workplace: Industrial Organizational Psychology Laboratory**

Prerequisite: PSYC300.

In this laboratory course, students use data analytic techniques, along with psychology theories and principles, to solve problems and provide recommendations to mock organizations. Along with learning theories in industrial-organizational psychology and statistical analysis, students will improve personal presentation skills that promote effective communication of information.

0101	Benjamin Jones	Seats (Total: 15)	
	MW 10:00am - 10:50am F 10:00am - 11:50am	HBK 1112 ATL 1106	 Lab

0102	Benjamin Jones MW 10:00am - 10:50am F 12:00pm - 1:50pm	Seats (Total: 15) HBK 1112 ATL 1106	 Lab
0201	Benjamin Jones MW 2:00pm - 2:50pm Th 10:00am - 11:50am	Seats (Total: 15) BPS 1238 BPS 0140	 Lab
0202	Benjamin Jones MW 2:00pm - 2:50pm Th 12:00pm - 1:50pm	Seats (Total: 15) BPS 1238 BPS 0140	 Lab

PSYC460 **Psychological Foundations of Personnel Selection and Training**

Prerequisite: PSYC361 and PSYC200.

An examination of issues and processes involved in the design and evaluation of personnel selection and training programs in a variety of organizational settings: job, person and organizational analysis; organizational choice; development of predictors; evaluation of instructional and training systems; criteria for performance evaluation, promotion and training.

0101	Emily Forgo TuTh 11:00am - 12:15pm	Seats (Total: 40) CCC 1200

PSYC468H **Field Experience and Special Assignments in Honors**

(Perm req)

An individual experience arranged by the honors student and his or her supervisor. A proposal submitted to the honors faculty in the semester preceding registration for the course should state the activities anticipated and the method of evaluation.

Contact department for information to register for this course.

PSYC469H **Honors Thesis Proposal Preparation**

(Perm req)

Development of honors thesis proposal by preliminary research and literature review. Presentation of formal proposal to the thesis committee.

Restricted to undergraduate PSYC majors only.

Contact department for information to register for this course.

PSYC478 **Independent Study in Psychology**

(Perm req)

Information about independent study may be obtained in BPS 1121. Restricted to PSYC majors (20010) only. The student must have completed 9 hours in PSYC with at least a 3.0 GPA in PSYC and a 2.8 overall GPA.

Contact department for information to register for this course.

PSYC479 **Special Research Problems in Psychology**

(Perm req)

Information about research credit may be obtained in BPS 1121. Restricted to PSYC majors (20010) only. The student must have completed 9 hours in PSYC with at least a 3.0 GPA in PSYC and a 2.8 overall GPA.

Contact department for information to register for this course.

PSYC489A **Advanced Special Topics in Psychology; The Nature and Biological Bases of Emotion**

Treatment of a specialized topic in psychology.

Restricted to PSYC majors and NEUR majors. Multidisciplinary exploration of the current state of our scientific understanding of emotional states and traits, their biological roots, and their relevance to psychiatric disease, with a major focus on anxiety disorders, depression, and addiction. We will cover foundational knowledge in neuroscience and genetics, strengths and weaknesses of popular methods, classic and cutting-edge empirical work, and ongoing conceptual debates. We will discuss crucial discrepancies between the ways in which scientists, laypeople, and Hollywood conceptualize emotions. In addition to human neuroimaging and genomic-association studies, we will explore biological research that affords causal insights, including animal models, acute pharmacological challenges, neurofeedback, brain stimulation, and case studies of patients with circumscribed neural insults.

0101	Alexander Shackman	Seats (Total: 75)
	MW 5:30pm - 6:45pm	ATL 1113

PSYC489G **Advanced Special Topics in Psychology; Hormones and Behavior**

Treatment of a specialized topic in psychology.

Prerequisite: C- or better in BSCI330, NEUR200, or PSYC202. Cross-listing with BSCI338N. Credit only granted for BSCI338N or PSYC489G. A comprehensive overview of the field of behavioral endocrinology, the study of the relationship between hormones and behavior, from a psychobiological perspective. Examine the major mammalian endocrine systems, how hormones influence sex determination, how hormones underlie sex differences in brain structure and function, the role of hormones in parental and social behaviors, mood disorders, homeostasis, cognition, and stress. Both normal and abnormal hormonal pathologies will be discussed. Due to the physiological and experimental perspectives, much of the phenomenology will be based on research in species other than humans. This species comparative approach will reveal interesting "ways of doing things" that are intriguingly different from how "humans do things."

0101	Mary Ann Rankin	Seats (Total: 35)
	TuTh 3:30pm - 4:45pm	PLS 1119

PSYC499H **Honors Thesis Research**

(Perm req)

In addition to the department and instructor, the director of the honors program may be contacted to obtain a section number. Prerequisite: permission of the thesis advisor. Permission may be obtained in BPS 1147. Restricted to undergraduate PSYC majors only.

Contact department for information to register for this course.

PSYC601 Quantitative Methods I

(Perm req)

Prerequisite: PSYC200; or students who have taken courses with comparable content may contact the department.

A basic course in quantitative/mathematical analysis and statistical methods in psychology with an emphasis on conceptual understanding. Topics include issues in measurement, probability theory, statistical inference and hypothesis testing, parameter estimation, bivariate regression, and correlation.

For PSYC majors only. For all non-psychology graduate students, written permission of the instructor and department is required.

0101	Paul Hanges	Seats (Total: 22)	
	TuTh 9:00am - 10:50am	BPS 1232	
	Th 5:00pm - 7:00pm	BPS 0140	Lab

PSYC603 Introduction to Industrial and Organizational Psychology

Credit only granted for: PSYC603 or PSYC730. Formerly: PSYC730.

Advanced survey of industrial-organizational psychology, including selection, training, motivation, group processes, leadership, organizational psychology, and organizational theory. Readings stressed and seminar time will be used for lectures, discussion and integration of the reading materials.

PCI1	Nikita Arun	Seats (Total: 40)	
	Meets August 28, 2023 - November 17, 2023		
	M 5:00pm - 8:00pm	BPS 1140B	
	Class time/details on ELMs	ONLINE	Discussion
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

PSYC614 Emotion: From Biological Foundations to Contemporary Debates in the Psychological Sciences

Multidisciplinary exploration of the current state of our scientific understanding of emotional states and traits, their biological roots, and their relevance to psychiatric disease. We will cover foundational knowledge in neuroscience and genetics, strengths and weaknesses of widely used methods, classic and cutting-edge empirical work, and ongoing conceptual debates. We will also discuss crucial discrepancies between the ways in which scientists and laypeople conceptualize emotions. In addition to human neuroimaging and genomic-association studies, we will explore biological research that affords causal insights, including animal models, acute pharmacological challenges, neurofeedback, and brain stimulation approaches, and case studies of patients with circumscribed neural insults.

0101	Alexander Shackman	Seats (Total: 20)
	M 9:00am - 11:45am	BPS 1234

PSYC622 **Research Methods in Clinical Psychology**

Restriction: Permission of instructor. Credit only granted for: PSYC622 or PSYC718. Formerly: PSYC718.

Examines issues and strategies in conceptual systems, designs and methodologies of current research in clinical and community psychology. Readings include critical analyses of published research. Course requirements include preparation of a research proposal for a thesis level study.

PCC1	Christina Danko	Seats (Total: 40)
	Meets August 28, 2023 - November 17, 2023	
	Tu 6:00pm - 9:10pm	BPS 1236
	Must be in Clinical Psychological Science (MPS). Golden ID students are not eligible for this section.	

PSYC623 **Child Development & Psychopathology**

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)).

Examines the scientific and clinical literature relevant to developmental aspects of behavior across the lifespan and normal and pathological behavior in children and adolescents. Issues in developmental psychology and developmental psychopathology and consideration of processes initiated in childhood that manifest as pathology in adulthood are also considered.

0101	Heather Yarger	Seats (Total: 20)
	Tu 12:00pm - 2:30pm	BPS 1140A

PSYC629B **Clinical Laboratory; Assessment Practicum**

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Yevgeny Botanov Contact instructor or department for details.	Seats (Total: 10)
0102	Yevgeny Botanov Contact instructor or department for details.	Seats (Total: 10)

PSYC629D **Clinical Laboratory; Child and Adolescent Therapy Practicum**

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Mary Byrne Contact instructor or department for details.	Seats (Total: 10)

PSYC638 **Externship in Professional Psychology**

Approved appointment as an extern in a mental health setting.

For PSYC majors only.

0101	Lea Dougherty Contact instructor or department for details.	Seats (Total: 20)
0201	Derek Iwamoto Contact instructor or department for details.	Seats (Total: 20)

PSYC639 **Internship in Professional Psychology**

This seminar combines involvement with a program approved appointment as an intern in a mental setting with a supervisory review of the training experience.

For PSYC majors only.

0101	Lea Dougherty Class time/details on ELMs	Seats (Total: 20) ONLINE

PSYC643 **Ethics and Foundations of Assessment and Clinical Intervention**

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)). Credit only granted for: PSYC643 or PSYC719. Formerly: PSYC719.

An overview of the ethical and professional issues involved in psychological research, instruction, and practice, with special attention to advocacy and ethical decision making regarding a variety of primary, secondary, and tertiary clinical/community interventions.

0101	Mary Byrne W 1:00pm - 3:30pm	Seats (Total: 20) BPS 1228

PCC1	Christina Danko, Susanna Crowell McQuarrie **Meets August 28, 2023 - November 17, 2023** Tu 6:00pm - 9:10pm	Seats (Total: 35) BPS 1140B
	Must be in Clinical Psychological Science (MPS). Golden ID students are not eligible for this section.	

PSYC644 **Basic Foundation of Clinical Interventions**

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)).

General introduction to behavior theory and the basic behavioral principles that underlie behavior therapy. Provides an introduction to the philosophical, theoretical and empirical contributions of basic behavior analysis as they relate to behavior therapy, including examples of how behavior therapy is disconnected from its roots.

PCC1	Rachel Singer **Meets August 28, 2023 - November 17, 2023** Th 6:00pm - 9:10pm	Seats (Total: 40) BPS 1238
	Must be in Clinical Psychological Science (MPS). Golden ID students are not eligible for this section.	

PSYC651 **Writing and Critical Thinking**

Restriction: Must be enrolled in and have successfully completed all courses in the first 4 terms of the Clinical Psychological Science MPS program.

A capstone experience to integrate knowledge learned throughout the program and improve critical thinking and research writing skills. This will be done through the production of a major research paper in an area relevant to the current or future career goals of the student and by emphasizing critical thinking skills.

PCC1	Christina Danko **Meets August 28, 2023 - November 17, 2023** Th 6:00pm - 9:10pm	Seats (Total: 20) BPS 1140B
	Must be in Clinical Psychological Science (MPS). Golden ID students are not eligible for this section.	

PCC2	Jack Blanchard	Seats (Total: 20)
	Meets August 28, 2023 - November 17, 2023	
	Th 6:00pm - 9:10pm	BPS 1140B
	Must be in Clinical Psychological Science (MPS). Golden ID students are not eligible for this section.	

PSYC653 **The Business of Evaluation: Research Methods at Work**

Prerequisite: PSYC652. Additional information: Course builds from work completed in PSYC 652. Students are also expected to commit to a two-term long project. Students will work with a non-profit organization or local business to ask and answer a business question for the organization. Students will conclude this project in PSYC 654.

Students will learn about the strengths and weaknesses of commonly employed research methods in business settings, including: longitudinal research, survey and interview (including focus groups) design, and sampling and weighting. Students will design and launch a research study that will answer a pressing business question.

PCI1	Angela Ferreira	Seats (Total: 40)
	Meets August 28, 2023 - November 17, 2023	
	M 5:00pm - 8:00pm Class time/details on ELMs	BPS 1140B ONLINE
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

PSYC654 **Advanced Analytical Thinking: Statistical Methods at Work II**

Prerequisite: PSYC652 and PSYC653. Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

Students will delve deeply into issues of interpreting and questioning analytic results. Students will learn how to creatively present empirical results in ways that grab the attention of, and are clear to, a variety of stakeholders. Students will present group projects in two presentations, one to the rest of the class (technical audience) and one to an expert panel of practitioners. Finally, this course will introduce students conceptually to a number of advanced statistical methods, such as meta-analysis and structural equation modeling.

PCI1	Meg O'Neill	Seats (Total: 40)	
	Meets August 28, 2023 - November 17, 2023		
	M 5:00pm - 8:00pm Class time/details on ELMs	IRB 2107 ONLINE	Discussion
	Restriction: Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

PSYC660 **Performance Management, Compensation, and Benefits**

Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

This course draws together content on organizational behavior, selection, assessment, development, employee relations, and compensation, among other topics. Students in this course will learn about how to align organizational reward systems, including selection, development, performance appraisal, feedback, and compensation systems. This course will pull from current organizational research and theory on issues ranging from work motivation, employee retention, and feedback processes to issues of organizational strategy and culture.

PCI1	David Shar	Seats (Total: 40)	
	Meets August 28, 2023 - November 17, 2023		
	M 5:00pm - 8:00pm Class time/details on ELMs	IRB 2207 ONLINE	
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

PSYC661 **Practicum in IO Psychology**

Prerequisite: PSYC603, PSYC652, PSYC653, and PSYC654. Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

In this practicum, students will work on IO-related tasks in an organization and will have the opportunity to apply what they have learned in class to real-world problems. Students will write a reflection paper reviewing what skills they have applied - and developed - while completing this practicum.

PCI1	Kenneth Yusko	Seats (Total: 40)
	Meets August 28, 2023 - November 17, 2023	
	M 5:00pm - 8:00pm	IRB 2207
	Class time/details on ELMs	ONLINE
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

PSYC692 **Assessment in Counseling Psychology I**

Prerequisite: PSYC680. Credit only granted for: PSYC692 or PSYC721. Formerly: PSYC721.

Broad introduction to the construction of psychological tests and measures, and experience in test interpretation, with consideration of historical, legal, ethical, and cultural issues surrounding the assessment process.

0101	Jonathan Mohr	Seats (Total: 10)
	M 1:00pm - 4:00pm	BPS 1232

PSYC707 **Theory of Decision and Choice**

Prerequisite: PSYC602. Restriction: Permission of instructor.

A study of algebraic and probabilistic models for decision and choice behavior, and related experimental procedures. Topics include: measurement of preference, subjective utility models for certain and uncertain outcomes, normative strategies, decision making styles, and group decision making.

0101	James Grand	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	BPS 1103

PSYC732 **Selection and Classification Issues in Organizations**

Prerequisite: PSYC603; and (PSYC602; or students who have taken courses with comparable content may contact the department). Or permission of instructor.

Consideration of societal, organizational and individual demands for appropriate use of individual differences in (primarily) initial placement of employees. Recruitment, and selection issues, the role of governmental regulations, and the role of individual factors in individual behavior are considered. Extensive coverage given to fundamental psycho-metric problems and the development of individual and organizational criteria of effectiveness.

PCI1	Kenneth Yusko	Seats (Total: 40)	
	Meets August 28, 2023 - November 17, 2023		
	M 5:00pm - 8:00pm	IRB 2107	
	Class time/details on ELMs	ONLINE	Discussion
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

PSYC789 **Special Research Problems**
Contact department for information to register for this course.

PSYC798D **Graduate Seminar; Secondary Data Analysis for Psychologists**

0101	Arianna Gard	Seats (Total: 20)
	Th 2:00pm - 4:30pm	BPS 1232

PSYC798P **Graduate Seminar; Stereotyping and Prejudice**

Reviews the topics of stereotyping, prejudice, and discrimination from both perpetrators and targets perspectives. Topics will cover the psychological, social, and cultural processes that contribute to intergroup bias, responses to and consequences of intergroup bias, and how to intervene to reduce intergroup bias and its impact at the individual and structural level.

0101	Linda Zou	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	BPS 1232

PSYC799 **Master's Thesis Research; MASTERS THESIS RSRCH**

For PSYC majors only. For all non-psychology graduate students, written permission of the instructor and department is required.

Contact department for information to register for this course.

PSYC888A **Research Methods in Psychology; Developmental Seminar**

0101	Arianna Gard	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC889 **Research Methods in Psychology; Cognitive and Neural Systems Seminar**

0101	Matthew Roesch	Seats (Total: 10)
	W 1:00pm - 1:50pm	BPS 1103

PSYC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

PSYC899 **Doctoral Dissertation Research; Doctoral Dissertation Research**

(Perm req)

For PSYC majors only. For all non-psychology graduate students, written permission of the instructor and department is required.

Contact department for information to register for this course.

RDEV Real Estate Development Fall 2023

RDEV250 **People, Planet, and Profit: Building Sustainable Places**

Cross-listed with: ARCH271. Credit only granted for: ARCH271 or RDEV250.

An introduction to the four disciplines represented in the School: architecture and urban design, community planning, historic preservation, and real estate development, that work to create a more sustainable environment for the future to create a more sustainable environment for the future using our interpretation of the quadruple bottom line: socio-cultural, economic, environmental, and design sustainability. Students will be provided with an understanding of the fundamental scholarship and processes of each of these disciplines and examine the intersections between them. Additionally, they will learn by applying the approaches of the four disciplines through a series of field studies.

0101	Wayne Curtis TuTh 3:30pm - 4:45pm	Seats (Total: 150) ARC 0204

RDEV270 **Tax and Accounting for Real Estate Development**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development; and must not be in a major in the Robert H. Smith School of Business; and must not have completed BMGT210, BMGT220, or BMGT221.

An understanding of key tax and accounting principles and how they impact real estate development for students in the minor in real estate development is the purpose of this course. This course is geared for science, arts and humanities students who otherwise in their major would not take an accounting course as part of their major.

0101	John Park Tu 7:00pm - 9:40pm	Seats (Total: 32) ARC 1103

RDEV350 **Real Estate Development: Introduction to Principles, Process, and Practice**

(Perm req)

Prerequisite: RDEV250 or ARCH271. Restriction: Must be in the Real Estate and the Built Environment major or the Real Estate Development minor; and permission of ARCH-School of Architecture, Planning, & Preservation. Credit only granted for: RDEV150 or RDEV350. Formerly: RDEV150.

An introduction to the basic principles of real estate development: How real estate and communities get built and how value is created. The emphasis is on entrepreneurship and an experiential learning approach to the entrepreneurial real estate development process, principles, and practice.

0101	Marcus Ervin M 7:00pm - 9:40pm	Seats (Total: 30) ARC 1103
0102	Jesse Saginor M 7:00pm - 9:40pm	Seats (Total: 50) ASY 2309

RDEV440 **Principles of Urban Design for Real Estate Professionals**

(Perm req)

Prerequisite: RDEV250 and RDEV350. Restriction: Must be in Real Estate and Built Environment Major; Permission of ARCH-Real Estate Development.

Introduces students to the design issues associated with development of the basic real property asset classes (office, retail, and residential) and the context driven forces that shape these different development types. Also introduces non-design students to the principles of visual literacy and the capacity of different property to support development in the effort to enhance a community.

0101	Robert McClennan Tu 7:00pm - 9:40pm	Seats (Total: 10) ARC 1101

RDEV450 **Foundations of Real Estate Finance and Investment**

(Perm req)

Prerequisite: Must have completed RDEV270 or an approved accounting course with a grade of C- or better; and minimum grade of C- in RDEV350. Restriction: Must be enrolled in RDEV Minor; and permission of ARCH-School of Architecture, Planning, & Preservation.

Real Estate Finance and Investment addresses how real estate value is established, the fundamental foundations of the time value of money, as well as more real estate specific applications of return on investment, net operating income, the components of a real estate sources and uses statement, sources of real estate equity and debt financing, commonly used debt ratios and equity returns in real estate, as well as concepts of sensitivity analysis and exit strategies.

0101	Kathryn Corby W 7:00pm - 9:40pm	Seats (Total: 30) ARC 1105
0102	Thomas Dwyer W 7:00pm - 9:40pm	Seats (Total: 10) ARC 1127

RDEV473 **Real Estate Case Study Competition**

(Perm req)

Prerequisite: RDEV250, RDEV350, and RDEV450. Restriction: Must be in the Real Estate and the Built Environment major; and permission of ARCH-Real Estate Development.

The Colvin Institute of Real Estate Development hosts a case study competition. The Colvin Case Study Challenge is a national intercollegiate real estate case study competition for full or part-time students enrolled in a college or a university real estate program (undergraduate or graduate or a university sanctioned real estate club/organization). The Challenge is to document a recent innovative real estate project within the team's metropolitan region. Unlike many other case competitions, this is a post-development report and documentation of a recently completed project (or project phase). The Challenge is designed to hone professional skills and reveal the knowledge base and understanding of markets, project valuation, finance, urban design and sustainability, entitlement processes and operational issues. This course prepares students to participate in the competition.

0101	Tanya Bansal W 7:00pm - 9:40pm	Seats (Total: 10) Location: TBA

RDEV600 **Principles and Practice of Real Property Development**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688T or RDEV600. Formerly: RDEV688T.

An introduction to basic principles of real estate development: How real estate and communities get built and how value is created. The emphasis is on entrepreneurship and an experiential learning approach to the entrepreneurial real estate development process, principles, and practice.

0101	Jesse Saginor M 7:00pm - 9:40pm	Seats (Total: 19) ASY 2309

RDEV603 **Introduction to Real Property Finance**

(Perm req)

Restriction: Permission of the Department. Credit only granted for: RDEV688Z, RDEV689V, or RDEV603. Formerly: RDEV688Z and RDEV689V.

Introduction to Real Property Finance addresses how real estate value is established, the fundamental foundations of the time value of money, as well as more real estate specific applications of return on investment, net operating income, the components of a real estate sources and uses statement, sources of real estate equity and debt financing, commonly used debt ratios and equity returns in real estate, as well as concepts of sensitivity analysis and exit strategies.

0101	Thomas Dwyer W 7:00pm - 9:40pm	Seats (Total: 10) ARC 1127

RDEV605 **Tax and Accounting for Real Property Developers**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688K or RDEV605. Formerly: RDEV688K.

This course is designed to familiarize students with taxation and accounting as it pertains to real estate development.

0101	John Park Tu 7:00pm - 9:40pm	Seats (Total: 18) ARC 1103

RDEV620 **Market Analysis for Real Property Development**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV689M or RDEV620. Formerly: RDEV689M.

Designed to introduce and familiarize students with completing market analysis for real property projects. Includes a broad range of land uses including for-rent and for-sale residential, retail, office, and hospitality. Covers all aspects of completing a market analysis from the site visit to recommendations, and all the steps in-between. Examines how various real estate practitioners, such as developers, builders, investors, landowners, and public officials, utilize market studies.

0101	Abigail Ferretti M 7:00pm - 9:40pm	Seats (Total: 30) ARC 1105

RDEV635 **Capital Markets and Real Estate Investments for Developers**

(Perm req)

Prerequisite: RDEV630, URSP664, or RDEV688. Restriction: Must be in Real Estate Development (Master's) program; or permission of ARCH-Real Estate Development. Credit only granted for: RDEV635 or RDEV688F. Formerly: RDEV688F.

An advanced course in real estate finance focusing on capital markets and complex financing mechanism in the public and private markets for raising capital for development of public, private and public/private projects.

0101	Kathleen Miles Th 7:00pm - 9:40pm	Seats (Total: 19) ARC 1127

RDEV640 **Principles of Urban Design for Real Property Developers**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688J or RDEV640. Formerly: RDEV688J.

Introduces students to the design issues associated with development of the basic real property asset classes (office, retail, and residential) and the context driven forces that shape these different development types. Also introduces non-design students to the principles of visual literacy and the capacity of different property to support development in the effort to enhance a community.

0101	Robert McClennan Tu 7:00pm - 9:40pm	Seats (Total: 30) ARC 1101

RDEV660 **Commercial Leasing for Real Property Developers**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688L or RDEV660. Formerly: RDEV688L.

Provides students with a hands-on look at commercial and real estate leases, lease provisions, and current market activity, a key factor in determining when and whether to proceed with developing a commercial property.

0101	Andrew Rose, Suzanne White W 7:00pm - 9:40pm	Seats (Total: 20) ARC 1123

RDEV670 **Negotiating Agreements & Resolving Conflicts when Developing Real Property**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688E or RDEV670. Formerly: RDEV688E.

Designed to develop students' negotiation and leadership skills for managing differences between individuals and groups while in the process of developing and operating real property. Includes a blend of skill-building exercises and theory discussions about the behavior of individuals to understand negotiation dynamics.

0101	Ronald McDonald M 7:00pm - 9:40pm	Seats (Total: 16) ARC 1127

RDEV688C **Selected Topics in Real Estate Development; Real Estate Case Study Competition**

(Perm req)

Selected topics in real estate development.

0101	Tanya Bansal W 7:00pm - 9:40pm	Seats (Total: 10) Location: TBA

RDEV689Y **Current Topics in Real Estate Development; Guided Real Estate Development Project**

(Perm req)

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

Prerequisite: Permission of the department.

0101	Tanya Bansal, Maria Day-Marshall Contact instructor or department for details.	Seats (Total: 4)	

RDEV690 **Capstone Project: Real Property Feasibility Study**

(Perm req)

Prerequisite: Completion of at least 7 RDEV courses. Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688I or RDEV690. Formerly: RDEV688I.

The capstone course is designed to provide students with an opportunity to apply acquired classroom knowledge to real world conditions. Each student in the class will work separately to create a development proposal and feasibility study for an assigned property. For students doing a feasibility study of a development the study will address at least market analysis, entitlement process, construction, and financing for the project.

0101	Maria Day-Marshall, Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) ARC 1127	

RELS Religious Studies Fall 2023

RELS120 **Islamic Civilization**

Cross-listed with: HIST120. Credit only granted for: HIST120 or RELS120.

Introduction to society and culture in the Middle East since the advent of Islam: as a personal and communal faith; as artistic and literary highlights of intellectual and cultural life; and as the interplay between politics and religion under the major Islamic regimes.

0101	Rachel Schine MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 23) SYM 0200 TLF 1103	Discussion
0102	Rachel Schine MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) SYM 0200 TLF 1103	Discussion
0103	Rachel Schine MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 23) SYM 0200 TLF 1103	Discussion

RELS170 **Ancient Myths and Modern Lives**

Cross-listed with: CLAS170. Credit only granted for: CLAS170 or RELS170. Additional information: This course cannot be taken for language credit.

What are myths and why do we tell them? What powers do myths have? We will tackle these questions by looking at the enduring and fascinating myths from ancient Greece and Rome. In addition to studying how they shaped ancient societies, we will also look at their modern influence and reflect upon the power that myths still hold in our contemporary world. Taught in English.

0101	Chiara Graf MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 21) MMH 1400 ASY 3217	Discussion
0102	Chiara Graf MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 KEY 0125	Discussion
0103	Chiara Graf MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 CHM 1224	Discussion
0104	Chiara Graf MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 LEF 1171	Discussion
0105	Chiara Graf MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 HJP 2217	Discussion
0106	Chiara Graf MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 21) MMH 1400 ASY 3207	Discussion
0107	Chiara Graf MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 21) MMH 1400 ASY 3207	Discussion
0108	Chiara Graf MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 MTH B0427	Discussion
0109	Chiara Graf MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 22) MMH 1400 TWS 0207	Discussion

RELS171 Is Judaism a Religion?

Cross-listed with: JWST171. Credit only granted for: JWST171 or RELS171.

Jewish identity can be framed in terms of ethnicity, culture, and religious practice, but also in terms of more contemporary social constructions including social action, political engagement, and intellectual pursuit. In the context of such diverse social and individual frames, what does it mean to identify Judaism as a religion? Attention to Jewish society in historical and global perspective will provide a backdrop for a particular focus on contemporary Jews in the United States and Israel.

0101	Maxine Grossman MW 3:30pm - 4:45pm	Seats (Total: 40) TWS 0223	

RELS269 **Special Topics in Study Abroad II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS269F **Special Topics in Study Abroad II; Religion in a Pluralistic World**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS269G **Special Topics in Study Abroad II; From Asoka to Gandhi: Buddhism and Hinduism in Contemporary Society**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS273 **Jesus, Mani, and Muhammad: The Dynamics of New Religious Movements**

Cross-listed with: HIST289T. Credit only granted for: RELS273 or RELS289M or HIST289T. Formerly: RELS289M.

We examine three significant ancient religious figures: Jesus (d. 30s CE), Mani (d. 276 CE), and Muhammad (d. 632). All three were founders of long-lasting religions that were part of a dramatic change in the society and religion of the ancient world. Special areas of focus: the biographies of these founding figures, and how we know them; a historical approach to religious founders; and the sociology of new religious movements.

0101	Hayim Lapin TuTh 9:30am - 10:20am F 9:00am - 9:50am	Seats (Total: 23) SYM 0200 KEY 0100	 Discussion
0102	Hayim Lapin TuTh 9:30am - 10:20am F 10:00am - 10:50am	Seats (Total: 23) SYM 0200 KEY 0100	 Discussion
0103	Hayim Lapin TuTh 9:30am - 10:20am F 12:00pm - 12:50pm	Seats (Total: 23) SYM 0200 KEY 0100	 Discussion

RELS274 **Jerusalem in Antiquity: The History of Sacred Space in a Holy City**

Cross-listed with: JWST274. Credit only granted for: JWST274, RELS274, JWST289J or RELS289J. Formerly: JWST289J, RELS289J.

Examines the complex history of Jerusalem's status as a holy city, with a focus on constructions of sacred space in Judaism, Christianity, and Islam.

0101	Matthew Suriano MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 20) TWS 0320 ONLINE	 Discussion
0102	Matthew Suriano MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) TWS 0320 ONLINE	 Discussion
0103	Matthew Suriano MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 20) TWS 0320 ONLINE	 Discussion
0104	Matthew Suriano MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 20) TWS 0320 ONLINE	 Discussion

RELS342 **Renaissance Europe**

Cross-listed with: HIST332. Credit only granted for: HIST332 or RELS342.

Intellectual developments in Italy and Northern Europe from 1300 to 1550 and their influence on the arts and religion; social and economic trends, including the rise of the commercial economy in cities; the family and the role of women in society; expansion of Europe overseas and the beginnings of colonization; emergence of the state and consequent changes in political theory.

0101	Stefano Villani TuTh 3:30pm - 4:45pm	Seats (Total: 30) TLF 1101	

RELS369C **Special Topics in Study Abroad III; Between Tolerance and Conflict: Jewish, Christians and Muslims in the Iberian Peninsula**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS369R **Special Topics in Study Abroad III; Christianity and the Roman Empire (100-425CE)**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS439A **Advanced Topics in Religious Thought; Islamic Reformism**

Advanced study of religious thought in a particular setting, with attention to particular themes, texts, events, or communities.

Cross-listed with HIST428G. Credit only granted for HIST428G, HIST779C, or RELS439A. Islam is far from a monolithic religious tradition. We will debate a wide range of perspectives on the various facets of Islamic Reform and modernization in the 18th-21st centuries. Students will learn to appreciate the diversity of Islamic thought in the contemporary world and its manifestations in daily practice, and in social, political, regional, and international conflicts.

0101	Peter Wien Tu 3:30pm - 6:00pm	Seats (Total: 10) TLF 2100

RELS499 **Independent Study in Religious Studies**

An advanced independent research project for qualified students, supervised by a faculty member, on a topic not ordinarily covered in available courses.

Contact department for information to register for this course.

RELS619B **Directed Readings in Religous Studies; Islam and the Body**

(Perm req)

Individual Instruction course.

Contact department for information to register for this course.

RUSS Russian Fall 2023

RUSS101 **Intensive Elementary Russian I**

Prerequisite: Must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a native/fluent speaker of Russian. Credit only granted for: RUSS101 or (RUSS111 and RUSS112).

This intensive first-year course is intended to develop the four skills: reading, writing, listening and speaking with an emphasis on communicative competence.

This course has been put on a timed release system. Seats will be opended gradually by the registrar's office, to a total of 15 seats per section. If the course is full, please put yourself on the waitlist and contact Dr. Cynthia Martin (cmartin@umd.edu) for permission to enroll.

0101	Inna Hardman MWF 10:00am - 10:50am TuTh 9:30am - 10:45am	Seats (Total: 15) JMZ 3203 JMZ 1226
0201	Inna Hardman MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 3203 JMZ 1226

RUSS201 **Intermediate Russian I**

Prerequisite: RUSS102 or RUSS114; or must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a native/fluent speaker of Russian.

Continued activation and expansion of skills and knowledge acquired in an elementary Russian course with the goal of communicative competence.

If the course is full, please put yourself on the waitlist and contact Dr. Cynthia Martin (cmartin@umd.edu) for permission to enroll.

0101	Zhanna Gerus-Vernola	Seats (Total: 15)
	MWF 10:00am - 10:50am	ATL 1114
	TuTh 10:00am - 10:50am	ATL 1114

RUSS287 **The Power of the Word: Freedom of Speech in the U.S. and Russia**

Credit only granted for: RUSS287 or RUSS289I. Formerly: RUSS289I. Additional information: Taught in English.

The central theme is the abiding human propensity to ask questions, to use language to pursue inquiry. To be a "critical thinker," one must develop the habit and discipline of asking questions and challenging assumptions. Through a comparative approach to the US and Russian experiences, we will explore the role of language and its power in different political and social systems. We will explore such questions as: Why is free speech so fiercely defended in a democracy and such a threat to totalitarianism? What is the relationship between free speech, political power and dissent? Is the pen still mightier than the sword, even in the nuclear age? What has shaped our current attitudes toward freedom of expression? How has the concept of political free speech been extended to include freedom of expression in general, such as in the creative arts? What role do new technologies play in the arena of free speech debates? We will explore how freedom of speech and expression has been defended or its suppression justified in the US and Russia. We will practice the art of questioning and constructing counter-arguments throughout the course.

Restricted to students in the Carillon Community.

0101	Cynthia Martin	Seats (Total: 30)
	TuTh 9:30am - 10:45am	JMZ 0122

RUSS301 **Advanced Russian I**

Prerequisite: RUSS202; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of Russian.

Advanced training in written Russian communicative structures.

0101	Michael Lavery	Seats (Total: 15)
	MWF 10:00am - 10:50am	ESJ B0320

RUSS386 **Experiential Learning**

(Perm req)

Restriction: Junior standing or higher; and permission of ARHU-School of Languages, Literatures, and Cultures department.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

RUSS398D **Selected Topics in Russian Language and Literature; New Wave Cinemas of the Soviet Bloc**

0101	Elizabeth Papazian	Seats (Total: 20)
	MW 3:30pm - 4:45pm	HBK 0123

RUSS398L **Selected Topics in Russian Language and Literature; Russian for Heritage Learners**

The course is intended for heritage speakers of Russian who may have had little or no formal instruction in Russian. Please contact instructor if you are unsure of your current abilities: Inna Hardman: ihardman@umd.edu

0101	Inna Hardman	Seats (Total: 15)
	MWF 1:00pm - 1:50pm	JMZ 0208

RUSS401 **Advanced Russian Composition**

Prerequisite: RUSS302; or students who have taken courses with comparable content may contact the department. Restriction: Not open to native speakers of Russian.

Approaches to argumentation, organization of information, contextualized grammar, appropriateness of lexical choice, genre, and register.

0101	Cynthia Martin	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	JMZ 1103

RUSS439V **Selected Topics in Russian Literature; Museums, Masterworks, and Memes: Exploring Russophone Visual Cultures**

Presentation of a topic in Russian literature.

Prerequisites: Must have completed RUSS202 or have equivalent proficiency at the Intermediate level or above, by permission of instructor. Examines visual cultures of the Russian-speaking world in historical and social context. We will become familiar with important artworks produced in the Russian Empire, the Soviet Union, and in Russophone communities today. We will also explore what Russian speakers understand and have understood about these artworks. In learninghow to "read" Russophone art, we will investigate the notions of "high" and "low" culture and reflect on the relationship between art and everyday life. Taught in Russian.

0101	Michael Lavery	Seats (Total: 15)
	MW 2:00pm - 3:15pm	TLF 0110

RUSS499 **Independent Study in Russian**

(Perm req)

Independent study under faculty supervision.

Contact department for information to register for this course.

SLAA Second Language Acquisition and Application Fall 2023

SLAA610 **Research and Theories in Second Language Acquisition**

Introduction to current theories and research findings Second Language Acquisition (SLA).

0101	Megan Masters	Seats (Total: 15)
	M 2:00pm - 4:30pm	JMZ 1226

SLAA620 **Second Language Research Methodologies**

Prerequisite: SLAA610; and must have completed or be concurrently enrolled in SLAA611.

An exploration of research methodology in second language acquisition (SLA), with a focus on developing practical skills in data analysis and interpretation. Preparation in both critical evaluation of existing research and design of new research models.

0101	Bronson Hui	Seats (Total: 15)
	F 2:30pm - 5:00pm	JMZ 1226

SLAA649R **Special Topics in Second Language Acquisition; Research Critique**

Current topics in research in second language acquisition.

0101	Nan Jiang	Seats (Total: 15)
	Th 5:00pm - 7:30pm	JMZ 3203

SLAA650 **Second Language Analysis**

Prerequisite: SLAA610; or permission of ARHU-School of Languages, Literatures, and Cultures department.

An overview of the field of linguistics with a particular attention to its application in SLA studies, introduces students to the basic concepts and skills related to the scientific study of language, and provides them with opportunities to apply these concepts and skills in the analysis of language. It covers topics such as phonetics, phonology, morphology, syntax, semantics, language acquisition, and language use.

0101	Martyn Clark	Seats (Total: 15)
	Tu 2:00pm - 4:30pm	JMZ 1226

SLAA719 **Second Language Acquisition and Application Internship**

Internship at a site to be determined. Topics may include heritage language learning, immersion education, testing and assessment, translation and interpretation, and national language planning and policy.

Contact department for information to register for this course.

SLAA742 **Second Language Processing**

Restriction: Permission of instructor required for MA students.

Covers leading theoretical approaches and experimental methods in second language processing. Draws on research and theories in Second Language Acquisition (SLA), formal linguistics, cognitive grammar, psycholinguistics, and neurolinguistics.

0101	Nan Jiang	Seats (Total: 15)
	Th 2:00pm - 4:30pm	JMZ 1226

SLAA749V **Special Topics in Second Language Learning; The Mental Lexicon**

Current topics in research on Second Language Learning.

0101	Kira Gor	Seats (Total: 15)
	W 2:00pm - 4:30pm	JMZ 1226

SLAA750 **Instructed Second Language Acquisition**

Prerequisite: SLAA610.

Survey of studies on effectiveness of SLA instruction within various domains of language, with focus on research design.

0101	Bronson Hui	Seats (Total: 15)
	Tu 5:00pm - 7:30pm	JMZ 3203

SLAA779 **Directed Research in Second Language Acquisition and Application**

Directed independent research in Second Language Acquisition or Application. In this capstone project, students engage in independent research under faculty direction.

Contact department for information to register for this course.

SLAA798 **Master's Independent Study**
Contact department for information to register for this course.

SLAA799 **Master's Thesis Research**
Contact department for information to register for this course.

SLAA888 **Doctoral Independent Study**

Individual instruction course.

Contact department for information to register for this course.

SLAA898 **Pre-Candidacy Research**
Contact department for information to register for this course.

SLAA899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

SLLC School of Languages, Literatures and Cultures Fall 2023

SLLC108B **Beg Less Commonly Taught Language I; Elementary Basque I**

(Perm req)

Study of any of the less commonly taught languages at the elementary level. Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at University of Illinois, but students enroll and receive credit for it at UMD.

0101	Instructor: TBA	Seats (Total: 3)
	Meets August 21, 2023 - December 6, 2023	
	TuTh 4:30pm - 5:50pm	ONLINE

SLLC108E **Beg Less Commonly Taught Language I; Elementary Haitian Creole I**

(Perm req)

Study of any of the less commonly taught languages at the elementary level. Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at Indiana University, but students enroll and receive credit for it at UMD.

0101	Instructor: TBA	Seats (Total: 3)
	Meets August 21, 2023 - December 15, 2023	
	TuTh 3:00pm - 4:30pm	ONLINE

SLLC108I **Beg Less Commonly Taught Language I; Elementary Hindi I**

(Perm req)

Study of any of the less commonly taught languages at the elementary level. Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Minnesota, but students enroll and receive credit for it at UMD.

0101	Instructor: TBA **Meets September 5, 2023 - December 13, 2023** MTuWThF 12:15pm - 1:05pm	Seats (Total: 3) ONLINE

SLLC108K **Beg Less Commonly Taught Language I; Elementary Kiswahili I**

(Perm req)

Study of any of the less commonly taught languages at the elementary level. Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at Ohio State University, but students enroll and receive credit for it at UMD.

0101	Instructor: TBA **Meets August 22, 2023 - December 6, 2023** MTuWTh 10:20am - 11:15am	Seats (Total: 3) ONLINE

SLLC108R **Beg Less Commonly Taught Language I; Elementary Urdu I**

(Perm req)

Study of any of the less commonly taught languages at the elementary level. Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Minnesota, but students enroll and receive credit for it at UMD.

0101	Instructor: TBA **Meets September 5, 2023 - December 13, 2023** MTuWThF 10:05am - 10:55am	Seats (Total: 3) ONLINE

SLLC108Y **Beg Less Commonly Taught Language I; Elementary Yoruba I**

(Perm req)

Study of any of the less commonly taught languages at the elementary level. Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at Indiana University, but students enroll and receivecredit for it it at UMD.

0101	Instructor: TBA	Seats (Total: 3)
	Meets August 21, 2023 - December 15, 2023	
	MW 11:30am - 12:20pm	ONLINE
	TuTh 11:30am - 12:45pm	ONLINE

SLLC118U **Introductory Less Commonly Taught Language I; Elementary Ukrainian I**

This introductory course is intended to develop the four skills: reading, writing, listening and speaking with an emphasis on communicative and cultural competence.

This introductory course is intended to develop the four skills: reading, writing, listening and speaking with an emphasis on communicative and cultural competence.

0101	Kateryna Kokhan	Seats (Total: 15)
	MWF 1:00pm - 1:50pm	ONLINE

SLLC169B **Special Topics in Study Abroad I; Elementary Basque I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC169C **Special Topics in Study Abroad I; Elementary Basque II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC169D **Special Topics in Study Abroad I; Great Czech Writers**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC169L **Special Topics in Study Abroad I; Basque Language and Culture**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC208E **Intermediate Less Commonly Taught Language I; Intermediate Haitian Creole I**

(Perm req)

Intermediate-level work on speaking, reading, and writing a less commonly taught language. Continued development of oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the Inidana University, but students enroll and receive credit for it at UMD.

0101	Instructor: TBA **Meets August 21, 2023 - December 15, 2023** Class time/details on ELMs	Seats (Total: 3) ONLINE

SLLC269B **Special Topics in Study Abroad II; Scandinavian Moods in Cinema**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC269D **Special Topics in Study Abroad II; Catalan Language and Culture**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC269X **Special Topics in Study Abroad II; Intermediate Basque I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC269Y **Special Topics in Study Abroad II; Intermediate Basque II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC280 **Mythology of the Oppressed**

Credit only granted for: SLLC280 or SLLC299J. Formerly: SLLC299J.

Does information drive human history? Mythological recurrences say much about cultures that had to adapt their world views while attempting to preserve them. This course examines the cognitive or social bases of mythology, to be pursued from insights in cultural and literary studies, linguistics, the cognitive sciences, paleo-anthropology, archeology, etc. The course is designed to help students think about complex problems from a humanistic perspective, making liberal use of the sciences.

Restricted to Carillon Community Language students.

0101	Juan Uriagereka TuTh 11:00am - 12:15pm	Seats (Total: 35) CCC 1205

SLLC286 **Living the Good Life: Chinese Philosophy in the Modern World**

Additional information: Taught in English.

Confucius, Mencius, Zhuangzi and other Chinese thinkers who lived more than 2,000 years ago would argue that the contemporary Western emphasis on self-discovery (Find yourself) and self-acceptance has led you astray. See what they have to say and discuss what relevance it has for the modern world as we study how early Chinese thinkers wrestled with questions of existence, morality, and governance. No previous knowledge of Chinese philosophy and history will be assumed and no prerequisites are required. We will discuss ideas that are both historical and relevant to students' lives. What is "the Way"? How do we cultivate spontaneity? Is there a stable self? How can we be more alive? These are questions important for ancient kings but also for UMD students choosing a major, or wondering how ARHU can benefit them.

0101	Andrew Schonebaum TuTh 2:00pm - 3:15pm	Seats (Total: 60) TWS 0310

SLLC299R **Special Topics in World Cultures; Elementary Italian I**

Topic to be announced when course is offered.

Contact department for information to register for this course.

SLLC299Z **Special Topics in World Cultures; Spanish Civilization and Culture**

Topic to be announced when course is offered.

Contact department for information to register for this course.

SLLC309 **Language Partner Program**

(Perm req)

For intermediate- to advanced-level language study. Conversations entirely in target language with native speaker.

Students must be able to meet on September 11, 2023 and December 4, 2023.

0101	Ahmed Hanafy M 4:00pm - 5:50pm Contact instructor or department for details. *Arabic.*	Seats (Total: 10) STM 0105
0102	Ahmed Hanafy M 4:00pm - 5:50pm Contact instructor or department for details. *Chinese.*	Seats (Total: 10) STM 0105
0103	Ahmed Hanafy M 4:00pm - 5:50pm Contact instructor or department for details. *French.*	Seats (Total: 10) STM 0105

0104	Ahmed Hanafy M 4:00pm - 5:50pm Contact instructor or department for details. *German.*	Seats (Total: 10) STM 0105
0105	Ahmed Hanafy M 4:00pm - 5:50pm Contact instructor or department for details. *Italian.*	Seats (Total: 10) STM 0105
0106	Ahmed Hanafy M 4:00pm - 5:50pm Contact instructor or department for details. *Japanese.*	Seats (Total: 10) STM 0105
0107	Ahmed Hanafy M 4:00pm - 5:50pm Contact instructor or department for details. *Korean.*	Seats (Total: 10) STM 0105
0108	Ahmed Hanafy M 4:00pm - 5:50pm Contact instructor or department for details. *Portuguese.*	Seats (Total: 10) STM 0105
0109	Ahmed Hanafy M 4:00pm - 5:50pm Contact instructor or department for details. *Russian.*	Seats (Total: 10) STM 0105
0110	Ahmed Hanafy M 4:00pm - 5:50pm Contact instructor or department for details. *Spanish.*	Seats (Total: 10) STM 0105
0111	Ahmed Hanafy M 4:00pm - 5:50pm Contact instructor or department for details. *Persian.*	Seats (Total: 10) STM 0105

SLLC312 Language House Immersion

Restriction: With the approval of the Language House Director and the related program Faculty Liaison. Must be a student of the Language House Immersion Program.

This course provides credit for students participating in the Language House Living-Learning program. It focuses on the further development of skills in the target language and the acquisition of cultural knowledge of the countries and communities where people speak the target language. It requires hands-on immersive linguistic and cultural activities led by a native-speaking mentor and supplements the learning that takes place in the language classroom and in the living-learning environment of the Language House.

0101	Marilyn Matar Contact instructor or department for details. *Arabic.*	Seats (Total: 10)
0102	Marilyn Matar Contact instructor or department for details. *Chinese.*	Seats (Total: 10)
0103	Marilyn Matar Contact instructor or department for details. *French.*	Seats (Total: 10)
0104	Marilyn Matar Contact instructor or department for details. *German.*	Seats (Total: 10)
0105	Marilyn Matar Contact instructor or department for details. *Italian.*	Seats (Total: 10)
0106	Marilyn Matar Contact instructor or department for details. *Japanese.*	Seats (Total: 10)
0107	Marilyn Matar Contact instructor or department for details. *Korean.*	Seats (Total: 10)
0108	Marilyn Matar Contact instructor or department for details. *Persian.*	Seats (Total: 10)

0109	Marilyn Matar Contact instructor or department for details. *Russian.*	Seats (Total: 10)
0110	Marilyn Matar Contact instructor or department for details. *Spanish.*	Seats (Total: 15)

SLLC369A **Special Topics in Study Abroad III; Alternative Culture, Literature, Music and Lifestyles**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369C **Special Topics in Study Abroad III; Czech Film**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369D **Special Topics in Study Abroad III; Art and Dictatorship**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369X **Special Topics in Study Abroad III; Advanced Basque I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369Y **Special Topics in Study Abroad III; Advanced Basque II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SMLP Southern Management Leadership Program Fall 2023

SMLP470 **Fundamentals of Entrepreneurial Ventures**

Restriction: Restricted to students in the Southern Management Leadership Program. Credit only granted for: HLMN470, SMLP470, ENES460 or BMGT461. Formerly: HLMN470. Additional information: SMLP470 may not count toward any BMGT major or minor degree.

Learn the processes and skills needed to launch and manage start-up ventures, including technology startups. Assess the feasibility of a startup ventures, as well as how to apply best practices for planning, launching, and managing new companies by using real-world examples and in-depth case studies. Discuss a wide range of issues of importance and concern to entrepreneurs and learn to recognize opportunity, assess the skills and talents of successful entrepreneurs, and learn models and approaches that help navigate uncertainty.

0101	Brooke Smith F 1:00pm - 3:30pm	Seats (Total: 45) ESJ 0215

SMLP472 **Strategies for Innovation & Entrepreneurship**

Restriction: Restricted to students in the Southern Management Leadership Program. Credit only granted for: HLMN472, SMLP472, BMGT467, or ENES463. Formerly: HLMN472. Additional information: SMLP472 may not count toward any BMGT major or minor degree.

Understand the process of technological change; the ways that firms come up with innovations; the strategies that firms use to benefit from innovation; and how to create new value not only through new products or services, but with novel technologies, business concepts, organizing structures, transaction/financing mechanisms, distribution channels, and market segmentation. Challenge students to think about how to create value and build a productive business organization with available resources (e.g. intelligence, insight, energy, initiative and personal relationships).

0101	Sara Herald F 1:00pm - 3:30pm	Seats (Total: 45) HJP 2242

SOCY Sociology Fall 2023

SOCY100 **Introduction to Sociology**

Introduces fundamental concepts and theories of sociology. Guided by C. Wright Mills' "sociological imagination," the course promotes critical thinking; challenges conventional assumptions about culture politics, history, and psychology; and equips students with theoretical approaches and research methods to analyze various sociological topics, including family, work, education, religion, social movements, and issues related to class, gender, race, and ethnic inequalities.

0101	Christopher Malackany MWF 10:00am - 10:50am	Seats (Total: 120) SHM 2102
0201	Christopher Malackany MWF 11:00am - 11:50am	Seats (Total: 120) SHM 2102
0301	Amelia Branigan M 2:00pm - 3:15pm W 2:00pm - 3:15pm	Seats (Total: 96) ASY 2309 ONLINE
0401	Jennifer Ashlock TuTh 9:30am - 10:45am	Seats (Total: 120) ASY 2203
0501	Jeffrey Parsells-Johnson TuTh 2:00pm - 3:15pm	Seats (Total: 120) ONLINE

FC01	Christopher Tamborini MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) SQH 1105
FC02	Daniel Swann TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) EDU 1121

SOCY105 **Introduction to Contemporary Social Problems**

Embark on an exploration of contemporary social issues and unravel the intricate ways in which these challenges are woven into the fabric of society. Develop a comprehensive understanding of societal organization and partake in a detailed study of selected social problems, with a specific emphasis on issues like social conflict and inequality. This course provides an insightful journey into the nuanced interplay between societal structure and prevalent challenges, fostering a heightened awareness of the dynamics shaping our social landscape.

0101	Mansoor Moaddel MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 90) ASY 2309 ONLINE
0201	Brian Connor MWF 1:00pm - 1:50pm	Seats (Total: 90) ASY 2309
0301	Jeffrey Parsells-Johnson TuTh 11:00am - 12:15pm	Seats (Total: 90) TWS 1100
FC01	Kalani Johnson MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ASY 3207

SOCY200 **Human Societies**

We will explore the nature of human societies through comparative, historical, and interdisciplinary perspectives. Students will delve into the core of social structures, unravel the defining components of society, and examine their organization, evolution, and impact on collective existence. Students will also explore the socio-historical forces and geopolitical dynamics that drive social change to analyze the complex connections that illuminate our shared social experience across time.

0101	Jeffrey Parsells-Johnson MW 2:00pm - 3:15pm	Seats (Total: 120) ASY 2203

SOCY201 **Introductory Statistics for Sociology**

Prerequisite: SOCY100; and (MATH107 or MATH111). Restriction: Must not have completed STAT400, BMGT231, or ENEE324.

Students will explore descriptive and inferential statistics. You will hone your quantitative analytical skills to construct impactful bivariate tables, craft frequency distributions, and decipher measures of central tendency and dispersion. Additionally, you will master the techniques of hypothesis testing, chi-square, ANOVA, and ordinary least squares regression, equipping you to seamlessly translate data into meaningful research insights.

0101	Mansoor Moaddel MW 2:00pm - 3:15pm F 10:00am - 11:50am	Seats (Total: 20) ASY 3207 LEF 0227	 Lab
0102	Mansoor Moaddel MW 2:00pm - 3:15pm F 12:00pm - 1:50pm	Seats (Total: 20) ASY 3207 LEF 0227	 Lab

SOCY202 **Introduction to Research Methods in Sociology**

Prerequisite: SOCY100.

We will examine why social research is needed, explore some of the main quantitative and qualitative techniques to conduct sociological research, and discover how to understand and critically evaluate sociological research on pressing social problems. Students will also learn to use specialized software to analyze and interpret quantitative data in the computer lab.

0101	Monica Caudillo TuTh 11:00am - 12:15pm F 10:00am - 11:50am	Seats (Total: 20) ASY 2309 LEF 0229	 Lab
0102	Monica Caudillo TuTh 11:00am - 12:15pm F 10:00am - 11:50am	Seats (Total: 20) ASY 2309 LEF 0231	 Lab
0103	Monica Caudillo TuTh 11:00am - 12:15pm F 12:00pm - 1:50pm	Seats (Total: 20) ASY 2309 LEF 0229	 Lab
0104	Monica Caudillo TuTh 11:00am - 12:15pm F 12:00pm - 1:50pm	Seats (Total: 20) ASY 2309 LEF 0231	 Lab

SOCY203 **Sociological Theory**

Prerequisite: SOCY100.

Examines major trends in the history and development of sociological thought, including theories of inequality, the self, institutions, and more. With each theorist students will learn what sociologists assume and focus on when studying societies.

0101	Brian Connor MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 78) ASY 2309 ONLINE

SOCY211 **The Sociology Major: Mapping the Road to Academic Success**

Restriction: Must be in the Sociology major (22080) or Sociology minor (#BS13).

Designed to assist students in making a successful transition to the major and will orient them to departmental, college, and university resources. Students will collaboratively explore avenues and best practices that build self-confidence and lead to academic achievement.

0101	Nicole De Loatch Tu 2:00pm - 2:50pm	Seats (Total: 20) ASY 1101

SOCY222 **Immigration and Ethnicity in America**

Cross-listed with: AAST222. Credit only granted for: AAST222, HIST222, or SOCY222.

The history of immigration and the development of diverse populations in the United States are examined. Topics include related political controversies, the social experiences of immigrants, ethnicity, generations, migration, inter-group relations, race and diversity in American culture.

0101	Julie Park TuTh 9:30am - 10:45am	Seats (Total: 40) ASY 3203

SOCY224 **Why are We Still Talking About Race?**

Explore and discuss the major debates and assumptions that construct perceptions of race and how it matters. Sociological and social science theories will give students a historical and present day frame with which to view race and ethnic relations in the twenty-first century.

0101	Kris Marsh Th 8:00am - 9:15am Class time/details on ELMs	Seats (Total: 100) ASY 2203 ONLINE
0201	Muna Adem TuTh 3:30pm - 4:45pm	Seats (Total: 60) ASY 2309

SOCY225 **Women's Jobs, Men's Jobs: How and Why Do They Differ?**

An exploration of critical issues pertaining to gender differences in the workplace. Overview of theories explaining why some people do better than others in the world of work, and discussions of more specific questions relating to women's and men's job opportunities and experiences.

0101	Liana Sayer MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 90) JMZ 0220 ONLINE

SOCY227 **Introduction to the Study of Deviance**

Credit only granted for: SOCY227 or SOCY327. Formerly: SOCY327.

An introduction to the sociological study of deviant behavior, covering such topics as mental illness, sexual deviance, and the use of drugs.

0101	Christopher Malackany MW 2:00pm - 3:15pm	Seats (Total: 90) CHM 1402

SOCY230 **Sociological Social Psychology**

Why do people do that? Sitting at the nexus of sociology and psychology, this course surveys the various ways in which sociologists have answered this question. We investigate individuals-for example, how they develop and understand themselves in relation to others, how they choose to present themselves to the world, and how they form thoughts and opinions. And we study larger units of analyses, from small groups to the broader society. Topics covered include socialization, identity formation, social influence, group processes, how social processes shape individual behavior, and how human behavior shapes society.

0101	Long Doan TuTh 2:00pm - 3:15pm	Seats (Total: 160) ASY 2203

SOCY241 **Inequality in American Society**

Credit only granted for: SOCY241 or SOCY441.

A broad-based overview of inequality in contemporary U.S. society, focusing on measuring patterns and trends over time. A series of learning modules familiarizes students with how inequality unfolds in relation to social stratification processes along the lines of race, gender, education and social class, income and wealth, and health.

0101	Reeve Vanneman TuTh 12:30pm - 1:45pm	Seats (Total: 80) ASY 2309

SOCY242 **Sociology of Homelessness**

Examines the causes of and solutions for homelessness in society. How social scientists analyze social issues using ethnographic observation, surveys, official statistics, and other research methods. Discusses how policies have responded to the problem of homelessness, and how to evaluate their effectiveness.

0101	Reeve Vanneman TuTh 9:30am - 10:45am	Seats (Total: 36) ASY 2309

SOCY243 **The Family: Diversity, Inequality, and Social Change**

Credit only granted for: SOCY243 or SOCY443. Formerly: SOCY443.

An exploration of diversity and inequality in family life, focusing on empirical patterns and trends, political and cultural debates, and policy issues, including the major theories and research methods used in the sociological study of the family in a plural society.

0101	Philip Cohen	Seats (Total: 80)
	MW 3:30pm - 4:45pm	ASY 2309

SOCY277 **Intersectionality and Illness: How do Overarching Social Inequalities Affect Health Outcomes?**

Credit only granted for: SOCY277 or SOCY302. Formerly: SOCY302.

Students will examine the social determinants of disease: the relationship between socioeconomic status and health care access, as well as investigate the links between social status and disease chronicity. Students will further explore how health disparities, health resource distribution, and susceptibility disproportionately affect disadvantaged communities with chronic diseases.

0101	Nicole De Loatch	Seats (Total: 60)
	TuTh 12:30pm - 1:45pm	ASY 2203

SOCY335 **Sociology of Health and Illness**

An exploration of the social model to studying health and illness: how meanings and experiences of health and illness are socially produced. How experiences are shaped by the interaction of external social environments (culture, community) and the internal environment (human body), and by socio-demographic variables (race, class, gender, etc.). Disparities in health and healthcare delivery, medicalization of society, determinants of health, social construction of illness, and the social organization of health care.

0101	Jennifer Ashlock	Seats (Total: 90)
	TuTh 12:30pm - 1:45pm	TWS 1100

SOCY380 **Honors Independent Reading in Sociology**

Restriction: Permission of BSOS-Sociology department.

This course permits sociology honor students to undertake a program or reading on a particular problem in sociology or a subfield therein. The reading will be done under the supervision of a member of the sociology faculty. Required of sociology honor students.

0101	Nicole De Loatch	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

SOCY381 **Honors Independent Research in Sociology**

(Perm req)

Prerequisite: SOCY380.

This course permits sociology students to define a particular problem in sociology or a subfield therein and to develop a research plan for use as a thesis topic. The work will be done under the supervision of a member of the sociology faculty.

Contact department for information to register for this course.

SOCY383 **Honors Thesis Research**

(Perm req)

Prerequisite: SOCY381.

Student research under the direction of a member of the sociology faculty, culminating in the presentation and defense of a thesis reporting the research.

Contact department for information to register for this course.

SOCY386 **Experiential Learning**

(Perm req)

Restriction: Permission of BSOS-Sociology department; and junior standing or higher.

To register, students must have departmental permission form signed by instructor and by Coordinator of Sociology Undergraduate Program.

Contact department for information to register for this course.

SOCY391 **Surveillance and the Erosion of Privacy**

Our world is under increasing amounts of surveillance, from states, corporations, and other individuals. These activities may affect our sense of privacy since surveilling others is done as a means to gather knowledge. This class examines surveillance and privacy together in order to answer the following questions: Are acts of surveillance in contemporary society eroding our sense of privacy? Are certain populations more or less privileged in terms of having privacy rights? How can we protect privacy rights in an age of surveillance?

0101	Brian Connor	Seats (Total: 30)
	MWF 10:00am - 10:50am	ASY 3203

SOCY399 **Independent Study in Sociology**

(Perm req)

Integrated reading or research under the direction and supervision of a faculty member. A maximum of 6 credits may be earned by a student for the same field experience in SOCY386 and SOCY399 combined.

No more than 6 hours of 399 is allowed for credit.

Contact department for information to register for this course.

SOCY410 **Social Demography**

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department.

Types of demographic analysis; demographic data; population characteristics; migration; mortality; fertility; population theories; world population growth; population policy.

0101	Julie Park	Seats (Total: 42)
	TuTh 3:30pm - 4:45pm	ASY 3203

SOCY424 **Sociology of Race Relations**

Prerequisite: 6 credits in SOCY courses; or permission of the Sociology department. Cross-listed with: AAST424. Credit only granted for: SOCY424 or AAST424.

Encourages sociological thinking about US racial and ethnic minority populations, with a focus on African Americans, Latinos, Asian Americans, and Native Americans. The central concern is to understand and explain racial/ethnic inequality. A wide array of topics are discussed, including prejudice and discrimination, slavery, residential segregation, cultural inequality, skin tone stratification, economic and educational disparities, and assimilation/generational processes.

0101	Wayne Santoro	Seats (Total: 35)
	MW 3:30pm - 4:45pm	ASY 3203

SOCY432 **Social Movements**

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department.

This course broadens students' understanding of social movements in the United States. Many topics are discussed, including the emergence of social movements, why people join social movements, collective identity, gender, culture, emotions, tactics, repression, and the decline of social movements. Various movements are reviewed, including the civil rights movement, the Chicano movement, the women's movement, the LGBTQ movement, the white power movement, the American Indian movement, and the animal rights movement.

0101	Wayne Santoro	Seats (Total: 35)
	MW 2:00pm - 3:15pm	ASY 3203

SOCY456 **Smart Machines and Human Prospects**

Prerequisite: SOCY201 and SOCY202; or permission of the Sociology department. Credit only granted for: SOCY416 or SOCY456.

Artificial intelligence is everywhere and never sleeps. It is transforming our social institutions in intended and unintended ways. While scientists debate the feasibility of engineering conscious machines with general intelligence, no one debates that the global race is on to create more potent computers. Through targeted research, discussion, and presentation of findings students will answer a specific question on how, where, and in what ways society is being changed by smart machines.

0101	Robert Pernick	Seats (Total: 45)
	TuTh 9:30am - 10:45am	TYD 0102

SOCY461 **Sociology in Action: Research and Community Engagement in Prince George's County**

Prerequisite: SOCY202; or students who have taken courses with similar content may contact the department.

Sociology in Action is a research course that will use the science of sociology to inform real life issues and contribute to the development of social programs. In this course, students will gain hands-on experience in applying sociology by working with clients in Prince George's County on specific social problems and issues. Please assess your ability to commit to this course and fulfill all requirements. Given that students will be working with Prince George's County organizations, there will be some variation and unpredictability in the nature of the projects.

0101	Amy McLaughlin	Seats (Total: 20)
	MW 2:00pm - 3:15pm	ASY 1213

SOCY462 **Digital Technology and Society**

Prerequisite: Must have completed 6 credits in SOCY courses; or permission of BSOS-Sociology department.

Situates digital technology in our social environment and then examines how this relationship reflects, reinforces, or reorders social hierarchies. Students will learn the conceptual and methodological foundations for studying and evaluating how technologies such as health and social media apps, the personal computer, artificial intelligence, and weapons of war have evolved, diffused and impacted social life. Students will explore and then conduct independent research on the relationship between technology and social inequalities through the lens of health and medicine, the environment and climate change, jobs and the workplace, as well as government and criminal justice.

0101	Jennifer Ashlock	Seats (Total: 29)
	TuTh 2:00pm - 3:15pm	ASY 3207

SOCY465 **The Sociology of War: State and Society since the American Revolution**

Prerequisite: Must have completed 6 credits in SOCY courses; or permission of BSOS-Sociology department. Credit only granted for: SOCY465 or SOCY265.

Since the American and French Revolutions at the end of the eighteenth century, warfare has been marked by the way national states draw ordinary people into armed conflicts--as members of the military, producers and controllers of resources and supporters or resisters, and also as targets and victims. This course examines how the centering of ordinary people in war has transformed over time, continuing right up to the current conflict in Ukraine. Alongside explaining why states make war the way they do, the course explores the impacts of making war and living through conflict on the societies embroiled in it.

0101	Meyer Kestnbaum	Seats (Total: 29)
	TuTh 12:30pm - 1:45pm	ASY 1213

SOCY601 **Statistics For Sociological Research I**

(Perm req)

Prerequisite: SOCY201; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor. Credit only granted for: SOCY601 and SURV601.

Introductory statistical concepts are covered including descriptive statistics, probability, sampling distributions, expected values, hypothesis testing, tests of significance, measures of association, and if time permits, introduction to regression analysis. Statistical programming software may be used.

0101	Amelia Branigan	Seats (Total: 20)
	M 3:30pm - 6:00pm	ASY 1101

SOCY610 **Logic of Social Inquiry**

Restriction: Restricted to Sociology graduate students. Credit only granted for: SOCY699D or SOCY610. Formerly: SOCY699D.

An introductory course on the fundamental issues that arise in the design, execution, analysis, and writing stages of the research process. The course is designed to help first-year graduate students begin their transition from a consumer to a producer of social research.

0101	Long Doan	Seats (Total: 20)
	Th 6:30pm - 9:00pm	ASY 1101

SOCY616 **Sociology Pro-Seminar**

Restriction: Must be in Sociology (Doctoral) program. Credit only granted for: SOCCY699P or SOCY616. Formerly: SOCY699P.

The proseminar is the guide to Sociology as a profession, and how sociology is practiced here at the University of Maryland. The goal of the course is to help students gain insider knowledge about how to develop sociological knowledge and capabilities, and what it means to practice sociology as a graduate student and beyond. The course will discuss both practical aspects of professional life in general and specific topics of interest.

0101	Kris Marsh	Seats (Total: 20)
	Th 12:00pm - 1:00pm	ASY 1101

SOCY620 **Development of European and American Sociological Theory**

Prerequisite: SOCY203 or SOCY403; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Review of the history of sociological thought with major attention to the key figures (from Marx to C. Wright Mills).

0101	Meyer Kestnbaum	Seats (Total: 20)
	Tu 3:30pm - 6:00pm	ASY 1101

SOCY646 **Public Image Management and Policy Solutions**

Restriction: Must be in one of the following programs: Master of Professional Studies in Public Safety Leadership and Administration (MPLA); Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral); Sociology (Master's); Sociology (Doctoral); or permission from either the Sociology Department or Criminology & Criminal Justice Department.

Explores how to mitigate and solve image management problems that arise in organizations. Students will learn how to evaluate their organization, make recommendations for future development, and implement the practical aspects of the solution. Problems arise daily in organizations. Leaders need effective strategies to mitigate and solve these problems. While some problems are structural, daily problems often focus on social interactions among people. The course will focus on evaluating the source of problems, enhancing cultural competency among employees, restructuring and rebranding the organization, managing public image, and forming and implementing innovative policy solutions for long-term goals.

PLL1	Nicol Lee	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

SOCY653 **Family Demography**

Restriction: Permission of instructor.

Demograpic perspective on family and household relationships; relationships among economic institutions, family structure, and the content of family life; research from contemporary U.S., historical and cross-cultural sources.

0101	Philip Cohen	Seats (Total: 20)
	M 6:30pm - 9:00pm	ASY 1101

SOCY657 **Constitutional Law and Public Safety**

Restriction: Must be in one of the following programs: Master of Professional Studies in Public Safety Leadership and Administration (MPLA); Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral); Sociology (Master's); Sociology (Doctoral); or permission from BSOS-Criminology & Criminal Justice department.

Introduces students to the constitutional issues inherent in the practice of policing. Particular emphasis is placed on issues pertaining to the 4th, 5th, and 6th Amendments.

PLL1	Michael Vesely	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

SOCY699 **Special Social Problems**

Contact department for information to register for this course.

SOCY699C **Special Social Problems; Introduction to Computing for Sociologists**

0101	Amelia Branigan	Seats (Total: 20)
	F 12:00pm - 2:00pm	LEF 0225

SOCY699M **Special Social Problems; Pro-Seminar for BA/MA Students**

(Perm req)

Restricted to students in the 5-Year BA/MA Sociology program.

0101	Brian Connor	Seats (Total: 10)
	M 12:00pm - 1:00pm	ONLINE

SOCY709 **Advanced Special Topics in Data Analysis**

An intensive examination of an area of interest in data analysis, including such topics as log linear analysis; discriminant function analysis; canonical correlation; factor analysis; analysis of qualitative data; content analysis; mathematical models.

0101	Michael Rendall	Seats (Total: 20)
	Th 3:30pm - 6:00pm	ASY 1101

SOCY799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

SOCY898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

SOCY899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

SPAN Spanish Fall 2023

SPAN103 **Intensive Elementary Spanish**

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Spanish. Credit only granted for: SPAN102 or SPAN103.

Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

0101	Barbara Zocal Da Silva MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 18) SQH 1121 JMZ 0125
0201	Ramiro Caces Barbosa MWF 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 18) KEY 0123 SQH 2120
0301	Samuel Aguayo MWF 12:00pm - 12:50pm Tu 12:00pm - 12:50pm	Seats (Total: 18) JMZ 0103 SQH 2120
0401	Maria Srur MWF 1:00pm - 1:50pm Tu 1:00pm - 1:50pm	Seats (Total: 18) JMZ 0122 SQH 2120

SPAN169O **Special Topics in Study Abroad I; Beginner Spanish I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169P **Special Topics in Study Abroad I; Beginner Spanish II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169X **Special Topics in Study Abroad I; Elementary Spanish I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169Y **Special Topics in Study Abroad I; Elementary Spanish II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN203 **Intensive Intermediate Spanish**

Prerequisite: SPAN103; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Spanish.

Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

0101	Ana Cuevas Albarran MWF 9:00am - 9:50am Th 9:00am - 9:50am	Seats (Total: 20) TLF 0103 EDU 3315
0201	Ofelia Montelongo Valencia MWF 10:00am - 10:50am Th 10:00am - 10:50am	Seats (Total: 20) TLF 0110 PLS 1115
0301	Ofelia Montelongo Valencia MWF 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 20) TLF 0103 PLS 1146
0401	Jose Magro MWF 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 20) TLF 0110 TWS 0207
0501	Ofelia Montelongo Valencia MWF 1:00pm - 1:50pm Th 1:00pm - 1:50pm	Seats (Total: 20) JMZ 2207 SQH 1101
0601	Noelia Mantilla MWF 1:00pm - 1:50pm Th 1:00pm - 1:50pm	Seats (Total: 20) JMZ 1224 ARC 1101

SPAN204 Spanish Grammar Review

Prerequisite: SPAN203; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Not open to fluent/native speakers of Spanish.

An in-depth study and analysis of selected grammatical topics in a contextualized framework.

0101	Angela Pico Pinto MWF 11:00am - 11:50am	Seats (Total: 18) SQH 1103
0201	Angela Pico Pinto MWF 1:00pm - 1:50pm	Seats (Total: 18) JMZ 0125
0301	Isadora Quintana TuTh 11:00am - 12:15pm	Seats (Total: 18) JMZ 0103
0401	Isadora Quintana TuTh 12:30pm - 1:45pm	Seats (Total: 18) JMZ 0125

SPAN206 Spanish for Heritage Speakers I

Prerequisite: Native or near native knowledge of and no formal education in Spanish.

Review of oral and written Spanish for students who have native or near native knowledge of, but no formal education in Spanish. Taught in Spanish.

Students new to language courses in SLLC must take the Foreign Language Placement Test in order to register.

0101	Evelyn Canabal-Torres MWF 10:00am - 10:50am	Seats (Total: 25) JMZ 1224

SPAN207 **Reading and Writing in Spanish**

Prerequisite: Must have completed or be concurrently enrolled in SPAN204; or must have appropriate World Language Placement Test (WLPT) score.

Selected readings with emphasis on reading comprehension and the development of reading strategies. Work in composition writing and a review of selected grammatical topics. Complements material of SPAN204.

0101	Chila Hidalgo MWF 10:00am - 10:50am	Seats (Total: 18) JMZ 2207
0201	Chila Hidalgo MWF 11:00am - 11:50am	Seats (Total: 18) JMZ 2207
0301	Chila Hidalgo MWF 12:00pm - 12:50pm	Seats (Total: 18) JMZ 2207
0401	Karina De Sande TuTh 9:30am - 10:45am	Seats (Total: 18) JMZ 0103
0501	Karina De Sande TuTh 11:00am - 12:15pm	Seats (Total: 18) JMZ 0125

SPAN234 **Issues in Latin American and Caribbean Studies I**

Cross-listed with: LACS234, PORT234. Credit only granted for: LASC234, PORT234, SPAN234, or LACS234. Formerly: LASC234.

Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions. Taught in English.

0101	Francisco Barrenechea MW 3:30pm - 4:45pm	Seats (Total: 30) SQH 1119

SPAN234H **Issues in Latin American and Caribbean Studies I**

Cross-listed with: LACS234, PORT234. Credit only granted for: LASC234, PORT234, SPAN234, or LACS234. Formerly: LASC234.

Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions. Taught in English.

Open to Honor students only.

0101	Francisco Barrenechea MW 3:30pm - 4:45pm	Seats (Total: 5) SQH 1119

SPAN269A **Special Topics in Study Abroad II; B1 Intermediate Level Spanish I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269B **Special Topics in Study Abroad II; B1 Intermediate Level Spanish II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269D **Special Topics in Study Abroad II; Catalan Language and Culture**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269I **Special Topics in Study Abroad II; Intermediate Spanish**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269L **Special Topics in Study Abroad II; Spanish Language B1**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN301 **Advanced Grammar and Composition I**

Prerequisite: Must have completed or be concurrently enrolled in SPAN207.

Practice of complex grammatical structures through reading and writing of compositions and essays. Specific lexical, syntactic, rhetorical, and stylistic devices will be highlighted.

0101	Ana Acedo Garcia MWF 10:00am - 10:50am	Seats (Total: 20) JMZ 0205
0201	Jorge Bayas MWF 11:00am - 11:50am	Seats (Total: 20) ARC 1101

0301	Ana Acedo Garcia MW 2:00pm - 3:15pm	Seats (Total: 20) JMZ 1224
0401	Andrea Torres Armas TuTh 9:30am - 10:45am	Seats (Total: 20) TLF 0110
0501	Ginette Eldredge TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 0118

SPAN302 **Advanced Grammar and Composition II**

Prerequisite: SPAN301.

Practice in and writing of different types of compositions and essays, including narrations, descriptions, and persuasive writing. Review of problematic syntactical structures.

Contact department for information to register for this course.

SPAN303 **Approaches to Cultural Materials in the Hispanic World**

Prerequisite: SPAN301. Recommended: May elect to take SPAN311 and/or SPAN316 in same semester as SPAN303.

Development of proficiency in critical thought through the reading, viewing, and analytical discussion of major genres and styles of cultural materials selected from Spanish-speaking world. Taught in Spanish.

0101	Tatiana Chi Miranda MWF 10:00am - 10:50am	Seats (Total: 20) TYD 1101
0301	Tatiana Chi Miranda MWF 1:00pm - 1:50pm	Seats (Total: 20) JMZ 0118
0401	Daniela Hernandez TuTh 9:30am - 10:45am	Seats (Total: 20) JMZ 1224
0501	Ana Rodriguez TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 1215
0601	Chris Lewis TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 1215
0701	Juan Carlos Quintero-Herencia TuTh 2:00pm - 3:15pm	Seats (Total: 20) JMZ 2207

SPAN306 **Spanish for Heritage Speakers II**

Prerequisite: SPAN206.

Practice of complex grammatical structures through reading and writing of compositions and essays. Specific lexical, syntactic, rhetorical and stylistic devices will be highlighted. Designed for Spanish speakers educated in English. Taught in Spanish.

0101	Evelyn Canabal-Torres MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 1224

SPAN311 Advanced Communication I

Prerequisite: SPAN301; and must have completed or be concurrently enrolled in SPAN303. Restriction: Must not be a native/fluent speaker of Spanish.

Further development of listening, speaking, and writing skills in Spanish. Opportunity to develop oral and written fluency, improve pronunciation and increase vocabulary. Individual and/or group oral presentations. Taught in Spanish.

0101	Ana Acedo Garcia MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 0205
0201	Ana Acedo Garcia MWF 12:00pm - 12:50pm	Seats (Total: 20) JMZ 0122
0301	Jackson Monzon TuTh 9:30am - 10:45am	Seats (Total: 20) JMZ 0118
0401	Ligia Gonzalez TuTh 11:00am - 12:15pm	Seats (Total: 20) TLF 0110

SPAN316 Spanish Translation I

Prerequisite: SPAN301; and must have completed or be concurrently enrolled in SPAN303.

Translation of texts into Spanish and/or English. Taught in Spanish.

0201	Barbara Zocal Da Silva TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 1120

SPAN317 Translation II

Prerequisite: SPAN316.

Translation of non-literary, non-technical texts into Spanish and/or English.

Contact department for information to register for this course.

SPAN325 Hispanic Linguistics I: Grammar and Society

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Credit only granted for: SPAN310 or SPAN325. Formerly: SPAN310.

Sociolinguistic approach to Spanish grammar focusing on real-life exploration of the ways linguistic structures change and are used in different parts of the Spanish-speaking world. Taught in Spanish.

0101	Elisa Gironzetti MW 2:00pm - 3:15pm	Seats (Total: 25) TWS 0223

SPAN331 **Spanish Culture, Civilization and Literature I: Medieval Times**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

The exploration of cultures of the Iberian Peninsula from its origins until the 15th century as well as the study of historical and political events that gave rise to the Spanish state. Taught in Spanish.

0101	Ginette Eldredge TuTh 12:30pm - 1:45pm	Seats (Total: 25) JMZ 2207

SPAN332 **Spanish Culture, Civilization and Literature II: Renaissance and Baroque**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Spain from the late 15th through late 17th centuries, exploring the production of literary texts in their socio-historical, political, religious and cultural contexts and development. Taught in Spanish.

Contact department for information to register for this course.

SPAN333 **Spanish Culture, Civilization and Literature III: Modern Times**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Spain from the late 17th century through the present day, exploring the production of literary texts in their socio-historical, political, religious and cultural contexts and development. Taught in Spanish.

0101	Mehl Penrose MWF 10:00am - 10:50am	Seats (Total: 25) TWS 0236

SPAN361 **Latin American Literatures and Cultures I: From Pre-Columbian to Colonial Times**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

Overview of cultural history of Latin America from pre-Columbian civilizations to the Colonial period, exploring the foundations of the Spanish American cultural and literary tradition to approximately 1770. Taught in Spanish.

0101	Maria Herrera Arvay MWF 10:00am - 10:50am	Seats (Total: 25) TWS 1107
0201	Eyda Merediz TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 1122

SPAN362 **Latin American Literatures and Cultures II: From Independence to Nation Formation**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Latin America from the 18th Century to approximately 1900, exploring the production of literary texts in their socio-historical, political, and cultural contexts and development. Taught in Spanish.

Contact department for information to register for this course.

SPAN363 **Latin American Literatures and Cultures III: From Modernism to Neo-Liberalism**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Latin America from the late 19th through the early 21st centuries, exploring the production of literary texts in their socio-historical, political, and cultural contexts and development. Taught in Spanish.

0101	Saul Sosnowski MW 2:00pm - 3:15pm	Seats (Total: 25) JMZ 0125
0201	Ryan Long TuTh 12:30pm - 1:45pm	Seats (Total: 25) JMZ 0122

SPAN369A **Special Topics in Study Abroad III; Advanced Oral Communication in Spanish**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369B **Special Topics in Study Abroad III; Advanced Academic Writing in Spanish**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369F **Special Topics in Study Abroad III; Spanish Oral Skills through Theatre**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369G **Special Topics in Study Abroad III; Spanish for the Health Professional**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369J **Special Topics in Study Abroad III; Spanish Grammar and Expression**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369M **Special Topics in Study Abroad III; Spanish Language B2**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369O **Special Topics in Study Abroad III; Spanish Conversation and Oral Skills**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369P **Special Topics in Study Abroad III; Spanish Oral Techniques**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Q **Special Topics in Study Abroad III; Spanish Phonetics and Phonology**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369R **Special Topics in Study Abroad III; Advanced Reading Skills in Spanish**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369V **Special Topics in Study Abroad III; Advanced Present-Day Spanish Usage**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369W **Special Topics in Study Abroad III; Spanish Stylistics: Advanced Spanish Writing and Stylistics**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Y **Special Topics in Study Abroad III; B2 Advanced Level Spanish 1**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Z **Special Topics in Study Abroad III; B2 Advanced Level Spanish 2**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN370 **Spanish for Business I**

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Credit only granted for: SPAN315 or SPAN370. Formerly: SPAN315.

Business Spanish terminology, vocabulary and practices. Emphasis on everyday spoken and written Spanish. Readings and discussions of Spanish commercial topics. May include exposure to Spanish commercial topics. May include exposure to Spanish business environments. Taught in Spanish.

0101	Chila Hidalgo	Seats (Total: 25)
	MW 2:00pm - 3:15pm	TWS 0201

SPAN371 **Spanish for the Health Professions**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

Exploration of cultural and linguistic skills for the health professions including vocabulary, listening, speaking, reading and strategies. No experience in the professional area necessary. Taught in Spanish.

0101	Evelyn Canabal-Torres	Seats (Total: 25)
	MWF 12:00pm - 12:50pm	JMZ 1122

SPAN372 **Spanish and the Law**

Prerequisite: SPAN311 or SPAN316. Credit only granted for: SPAN372 or SPAN359O. Formerly: SPAN359O.

Offers students the opportunity to enhance Spanish linguistic and intercultural communication skills in contexts of legal practice through the translation of a variety of legal documents. Introduces Spanish legal terminology in areas such as immigration, consumer protection, and criminal/employment/housing/family law. Students will learn how to apply these language and cultural skills as future legal practitioners interacting with clients who possess limited English proficiency. Native or fluent guest participants will expose students to legal terminology, registers, and dialects from various Spanish-speaking countries. The goal of the class is to enable students to, at a minimum, conduct intake interviews in a culturally competent fashion with Spanish-speaking clients without the assistance of interpreters. The course is designed to be beneficial for students with varying levels of Spanish language ability, up to and including students who are native or heritage speakers of Spanish. Taught in Spanish

0101	Jose Magro	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	JMZ 1215

SPAN374 **Spanish in the Community**

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Or permission of instructor. Credit only granted for: SPAN374 or SPAN359B. Formerly: SPAN359B.

Provides students with context for understanding, communicating with, and working with the Spanish-speaking community. Topics include Latino/a demographics, cultures, communities, work opportunities and local uses of Spanish. Requires outside service-learning work.

0101	Ana Rodriguez	Seats (Total: 20)
	TuTh 9:30am - 10:45am	JMZ 1120

SPAN375 **Spanish in the Life Sciences**

Prerequisite: SPAN303 and SPAN311; or SPAN316; or permission of instructor. Credit only granted for: SPAN359L or SPAN375. Formerly: SPAN359L.

Communication and critical thinking skills in Spanish through the study of materials related to science. The course engages students in class discussions about a variety of topics in different formats, such as book chapters, articles, film, art, and literary works. The course is divided into five units that will allow the study of specific geographies, topics, and cases in the Spanish-speaking world. Assignments include a research proposal and visits to the National Zoo and the National Museum of Natural History. No technical knowledge is necessary, as we will emphasize the language of science, not the content itself. Taught in Spanish.

0101	Daniela Hernandez TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 0205

SPAN386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

SPAN388W **Writing Center Internship**

(Perm req)

Prerequisite: Permission of the Writing Center (1205 Tawes Hall). Repeatable to 12 credits. Cross-listed with: ENGL388W. Credit only granted for: ENGL388W or SPAN388W.

Examines face-to-face and online writing center theory and practice through readings, exercises, and supervised tutoring. Students investigate the writing process and help other writers to negotiate it.

0101	Thomas Earles M 3:30pm - 6:00pm Contact instructor or department for details.	Seats (Total: 20) TWS 0224
2001	Thomas Earles Contact instructor or department for details.	Seats (Total: 4)

SPAN399 **Independent Study in Spanish**

(Perm req)

Specific readings in literature or a translation project under the supervision of a faculty member of the department.

Prerequisite: permission of department.

Contact department for information to register for this course.

SPAN401 **Advanced Composition I**

Prerequisite: SPAN302; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

Contact department for information to register for this course.

SPAN402 **Advanced Composition II**

Prerequisite: SPAN401; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

Contact department for information to register for this course.

SPAN408O **Special Topics in Iberian and Latin American Studies; Tropical Dreams: Nature and Art in Brazil**

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Cross-listed with PORT409A, LACS448Y, and SPAN609A. Credit only granted for PORT409A, LACS448Y, SPAN408O, or SPAN609A. Interdisciplinary examination of tropicality and nature tropes that have shaped current cultural, political, and environmental debates in Brazil. Taught in English.

0101	Thayse Leal Lima	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	JMZ 0125

SPAN408Y **Special Topics in Iberian and Latin American Studies; Contemporary Spanish Short Story**

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409F **Great Themes of the Hispanic Literatures; Literary Myths and Philosophy in the European Tradition**

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409L **Great Themes of the Hispanic Literatures; 20th Century and Contemporary Latin American Short Story**

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409O **Great Themes of the Hispanic Literatures; Images of Spain in Contemporary Cinema**

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409W **Great Themes of the Hispanic Literatures; Women Writers of Spain**

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409X **Great Themes of the Hispanic Literatures; The Spanish Mystery Novel**

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409Y **Great Themes of the Hispanic Literatures; Filmmaking in Spain**

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN420 **Spanish and Spanish-Speaking Communities in the US**

Prerequisite: SPAN325, SPAN425, or permission of instructor. Credit only granted for: SPAN478A or SPAN420. Formerly: SPAN478A.

Lays the foundations for the historical, linguistic, cultural, sociological, and political study of Spanish in the United States (US). The main goal of the course is to develop critical awareness about the relationship between language, individuals, and society within the diverse Spanish-speaking communities of the US. To this end, the course will analyze issues concerning, first, the historical and dialectal characteristics of the Spanish language in different regions of this country; second, the acquisition of Spanish as a minority language and in contact with both English and a large number of Spanish dialects; and third, the space that Spanish occupies in US public life now and in the future. The design of activities, assignments, and assessment procedures is based on promoting individual and collective awareness about crucial topics related to the present and the future of Spanish as one of the national languages of the US.

0101	Jose Magro	Seats (Total: 20)
	MW 3:30pm - 4:45pm	JMZ 2207

SPAN422 **Intercultural Communication and Negotiation**

Prerequisite: SPAN370 OR SPAN371 OR SPAN373 OR SPAN 374. Restriction: Junior standing or higher.

Focuses on the relationship of language and culture of those operating in world markets. Particular attention will be given to intercultural communication, linguistic systems, culture specific perceptions of, and negotiation with, the Spanish-speaking world. Taught in Spanish.

Contact department for information to register for this course.

SPAN425 **Hispanic Linguistics II: Structures of Spanish**

Prerequisite: SPAN303; and SPAN311 or SPAN316 or SPAN325.

This course begins with an introduction to general concepts in linguistics, from language function and the brain to communication, culture, and thought, and their relation to other disciplines in the social sciences. The main purpose of this course is to provide an overview of Hispanic linguistics through multiple perspectives, while exploring the areas of Spanish morphology, syntax, and semantics. This course will also focus on the structural tendencies of Spanish through a variety of practical activities. Taught in Spanish.

Jointly offered with SPAN625. Credit granted for SPAN425 or SPAN625.

0101	Manel Lacorte	Seats (Total: 20)
	TuTh 9:30am - 10:45am	JMZ 2207

SPAN449J **Special Topics in Spanish Civilization; Mosaic: Jews, Muslims and the Spanish Experience**

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449Z **Special Topics in Spanish Civilization; Barcelona/ Madrid: Literature & Film in the Contemporary City**

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN450 **The Hispanic Caribbean: What is a Beach?**

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363. Credit only granted for: SPAN408C or SPAN450. Formerly: SPAN408C.

Explores the Hispanic Caribbean as "island spaces" of multiple migrations and cultural identities, as sites of colonial experiences and post-colonial debates.

0101	Juan Carlos Quintero-Herencia	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 0103

SPAN461 **Queer Spain**

Prerequisite: One of the following: SPAN331, SPAN332, SPAN333, SPAN361, SPAN362 or SPAN363; or permission of instructor. Recommended: SPAN333. Credit only granted for: SPAN408A or SPAN461. Formerly: SPAN408A.

Explores discursive representations of Spaniards who were judged as non-normative by their society during the modern and contemporary period. Putting a critical lens to various cultural artifacts (visual arts, fiction, film, and journalism), we will interrogate what it means to be "(ab)normal" in terms of gender expression, erotic desire, sexuality, and anatomical sex in Spain at critical junctures in modern history. Taught in Spanish.

0101	Mehl Penrose	Seats (Total: 20)
	MWF 11:00am - 11:50am	TWS 0223

SPAN462 **Twentieth Century Drama**

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

Significant plays of the twentieth century.

Contact department for information to register for this course.

SPAN464 **Contemporary Spanish Poetry**

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

Spanish poetry from the generation of 1927 to the present.

Contact department for information to register for this course.

SPAN469C **Study Abroad Special Topics IV; Composition**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN469D **Study Abroad Special Topics IV; Chilean History**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN479 **Honors Thesis**

(Perm req)

Researching and writing an honors thesis under the direction of a professor.

Contact department for information to register for this course.

SPAN495 **Honors Reading**

Prerequisite: Must be in Spanish and Portuguese Honors; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Supervised reading.

Contact department for information to register for this course.

SPAN605 **Teaching Spanish I**

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must be a Spanish teaching assistant.

Methods and materials for teaching Spanish in higher education.

Restricted to SPAP graduate students or by permission of instructor only.

0101	Elisa Gironzetti	Seats (Total: 10)
	M 4:00pm - 4:50pm	JMZ 2215F

SPAN609A **Medieval Spanish Literature; Tropical Dreams: Nature and Art in Brazil**

Specific authors, genres, and literary periods studied in depth.

Cross-listed with PORT409A, LACS448Y, and SPAN408O. Credit only granted for PORT409A, LACS448Y, SPAN408O, or SPAN609A. Interdisciplinary examination of tropicality and nature tropes that have shaped current cultural, political, and environmental debates in Brazil. Taught in English.

0101	Thayse Leal Lima	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	JMZ 0125

SPAN625 **Introduction to Hispanic Linguistics I:Basic Concepts**

Introduction to basic terms and definition in Hispanic Linguistics. Fundamental aspects of phonology, morphology, syntax, semantics, sociolinguistics, and pragmatics.

Jointly offered with SPAN425. Credit granted for SPAN425 or SPAN625.

0101	Manel Lacorte	Seats (Total: 20)
	TuTh 9:30am - 10:45am	JMZ 2207

SPAN699 **Independent Study in Spanish**

This course is designed to provide graduate students an opportunity to pursue independent study under the supervision of a member of the department.

Contact department for information to register for this course.

SPAN798F **Open Seminar; Textual Markers in Argentina, Chile, and Uruguay**

Prerequisite: SPAN graduate student or permission of instructor A study of primarily twentieth-century novels that mark a watershed in these countries' literary traditions. Maria Luisa Bombal and Jose Donoso (Chil Juan Carlos Onetti and Armonia Somers (Uruguay), Julio Cortazar and Manuel Puig (Argentina), are among the authors that will be studied following a stop on Borges.

0101	Saul Sosnowski	Seats (Total: 10)
	M 5:00pm - 7:30pm	JMZ 1103

SPAN798G **Open Seminar; Narrative Subjects**

Prerequisite: SPAN graduate student or permission of instructor. This seminar combines readings of different theories of individual and collective subjectivities with relevant literary texts, such as the essays about indigenism by Luis Villoro and the indigenist novels of Rosario Castellanos. Other writers and thinkers we will study include Jose Marti, Natalia Toledo, Carlos Monsivais, Cristina Rivera Garza, and Antonio Cornejo Polar.

0101	Ryan Long	Seats (Total: 10)
	Tu 5:00pm - 7:30pm	JMZ 1103

SPAN798I **Open Seminar; Evolution of Spanish Language and its Diaspora in the Americas**

Prerequistie: SPAN graduate student or permission of instructor. This seminar focuses on the origins and evolution of Spanish Language. We will analyze Early Modern Spanish literary texts (including North America). Participants will also discuss critical essays related to linguistic politics from the 19th to the 21st century in Latin America and Spain.

0101	Carmen Benito-Vessels W 3:30pm - 6:00pm	Seats (Total: 10) JMZ 2215F	

SPAN799 **Master's Thesis Research**
Contact department for information to register for this course.

SPAN898 **Pre-Candidacy Research**
Contact department for information to register for this course.

SPAN899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

SPHL Public Health Fall 2023

SPHL100 **Foundations of Public Health**

Restriction: Must be in a major in SPHL-School of Public Health. Credit only granted for: SPHL100, PHSC300 or SPHL600.

An overview of the goals, functions, and methods of public health. After an introduction to the core concepts and tools used in public health research and practice, applications of these methodologies are considered in the context of current controversies/problems in public health. Students work together to develop strategies for prevention and control that take into consideration different points of view, outside research, and impacts on individuals and communities.

0101	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 8:00am - 8:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0305	Discussion
0102	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0305	Discussion
0103	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0305	Discussion

0104	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0305	Discussion
0105	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0305	Discussion
0106	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0305	Discussion
0107	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0305	Discussion
0108	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0305	Discussion
0109	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0227	Discussion
0110	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0227	Discussion
0201	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 8:00am - 8:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0307	Discussion

0202	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0307	Discussion
0203	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0307	Discussion
0204	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0307	Discussion
0205	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0307	Discussion
0206	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0307	Discussion
0207	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0307	Discussion
0208	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0307	Discussion
0209	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0227	Discussion

0210	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0227	Discussion
FC01	Tracy Zeeger TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) CSI 3118	

SPHL246 **Terp Restoration**

(Perm req)

Restriction: Students must be undergraduate majors within the School of Public Health; and permission of instructor.

This lab course is designed to assist students in improving academic strategies, learning time management practices, interacting with the faculty and greater campus community, and developing professional career aspirations. The focus will be on an exploration of the academic environment, campus resources, self-discovery tools, and skill development. Utilizing an interactive experience through facilitated discussion that develops positive relationships, students will actively explore academic opportunities offered through the School of Public Health and the University of Maryland.

0101	Renee Stokes Tu 11:00am - 12:15pm	Seats (Total: 20) SPH 0116B

SPHL333 **Fundamentals of Undergraduate Teaching for Education Assistants and Mentors (UTEAM)**

(Perm req)

Corequisite: SPHL399. Restriction: Permission of the instructor; and permission of the School of Public Health. Additional information: This course must be taken concurrently with SPHL399 the first term in which a student is a UTA. Preference is given to students within an SPHL major.

Supports the professional and personal development of UG students in the UTEAM program. Must be completed concurrently with the first semester of providing UTEAM support to a specific course. UTEAM members are dedicated student learners who provide peer education support for specific course as part of the teaching team and emphasizes: 1) introduction to teaching, learning, literature and practice, 2) collaboration with other UTEAM members, faculty and staff as a learning community, and 3) reflection on the knowledge and skills developed through course participation.

0101	Cynthia Kershaw Class time/details on ELMs	Seats (Total: 35) ONLINE

ESG1	Cynthia Kershaw	Seats (Total: 35)	
	Class time/details on ELMs	ONLINE	
	Restricted to students in the Public Health Science Program at USG.		

SPHL399 **Academic Peer Teaching and Mentoring in Public Health**

An independent study course for the Undergraduate Teaching and Mentoring (UTEAM) program within the School of Public Health. Students will apply evidence-based research while assisting peers with the understanding and application of course content. Specific responsibilities may vary dependent upon the course instructor. The primary roles of the UTEAM members will be to provide in-class support and/or external course support through review sessions, discussions sessions, laboratory support, group tutoring and office hours.

Contact department for information to register for this course.

SPHL479 **Special Topics in Public Health**

Special topics in the field of public health.

Contact department for information to register for this course.

SPHL600 **Foundations of Public Health**

Restriction: Must be a graduate student within the School of Public Health. Credit only granted for: SPHL100, PHSC300 or SPHL600.

An overview of the goals, functions, and methods of public health. After an introduction to the core concepts and tools used in public health research and practice, applications of these methodologies are considered in the context of current controversies/problems in public health. Students work together to develop strategies for prevention and control that taken into consideration different points of view, outside research, and impacts on individuals and communities.

0101	Sylvette La Touche-Howard	Seats (Total: 12)	
	Class time/details on ELMs Th 3:00pm - 4:00pm	ONLINE ONLINE	 Discussion
PLP1	Sylvette La Touche-Howard	Seats (Total: 35)	
	Class time/details on ELMs	ONLINE	
	Must be in Health Administration, Online. Golden ID students are not eligible for this section.		

SPHL601 **Core Concepts in Public Health**

Restriction: Must be a Master's of Public Health (MPH) or Master's of Health Administration (MHA) student within the School of Public Health.

Introduces students to the history, functions, systems, policies, and models of public health practice in the United States and globally. The course offers seminars, interactive activities, and assessments aimed at establishing a baseline understanding of public health necessary for higher level and integrative learning in subsequent public health courses.

0101	Danielle Catona **Meets August 28, 2023 - October 17, 2023** M 6:30pm - 8:30pm Class time/details on ELMs	Seats (Total: 90) SPH 1312 ONLINE
PLB1	Danielle Catona **Meets October 18, 2023 - December 11, 2023** Class time/details on ELMs *Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.*	Seats (Total: 17) ONLINE
PLH1	Danielle Catona **Meets October 18, 2023 - December 11, 2023** Class time/details on ELMs *Must be in Public Health Practice and Policy, Online. Golden ID students are not eligible for this section.*	Seats (Total: 23) ONLINE
PLK1	Danielle Catona **Meets October 18, 2023 - December 11, 2023** Class time/details on ELMs *Must be in Physical Activity, Online (MPH). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.*	Seats (Total: 6) ONLINE

SPHL602 **Foundations of Epidemiology and Biostatistics**

Recommended: Recommend SPHL603 as a co-requisite course. Restriction: Must be a graduate student within the School of Public Health. Credit only granted for: SPHL602 or EPIB610 and EPIB650.

An introduction to conceptual and practical tools from epidemiology and biostatistics that are necessary for the study of public health problems. Students learn epidemiologic concepts and methods, and basic statistical concepts and procedures used in public health research through applications, hands-on experience, and interpretations of statistical findings.

0101	Jamie Trevitt MW 4:15pm - 6:15pm	Seats (Total: 94) SPH 1312

PLB1	Jamie Trevitt	Seats (Total: 17)	
	Class time/details on ELMs	ONLINE	
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		
PLH1	Jamie Trevitt	Seats (Total: 23)	
	Class time/details on ELMs	ONLINE	
	Must be in Public Health Practice and Policy, Online. Golden ID students are not eligible for this section.		
PLK1	Jamie Trevitt	Seats (Total: 5)	
	Class time/details on ELMs	ONLINE	
	Must be in Physical Activity, Online (MPH). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

SPHL603 **Public Health Data Laboratory**

Corequisite: SPHL602. Restriction: Must be a graduate student within the School of Public Health.

An introduction to the statistical software necessary to implement the epidemiology and biostatistics concepts covered in the course EPIB 602, Foundations of Epidemiology and Biostatistics through hands-on exercises.

0101	Aaron Blakney, Jamie Trevitt	Seats (Total: 24)	
	W 6:30pm - 7:30pm	SPH 0302	Lab
	Class time/details on ELMs	ONLINE	Lab
0102	Megan Trangsrud, Jamie Trevitt	Seats (Total: 24)	
	W 6:30pm - 7:30pm	SPH 0308	Lab
	Class time/details on ELMs	ONLINE	Lab
0103	Aaron Blakney, Jamie Trevitt	Seats (Total: 24)	
	W 7:30pm - 8:30pm	SPH 0302	Lab
	Class time/details on ELMs	ONLINE	Lab
0104	Jamie Trevitt, Megan Trangsrud	Seats (Total: 24)	
	W 7:30pm - 8:30pm	SPH 0308	Lab
	Class time/details on ELMs	ONLINE	Lab

PLB1	Jamie Trevitt	Seats (Total: 17)	
	Class time/details on ELMs	ONLINE	Lab
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		
PLH1	Jamie Trevitt	Seats (Total: 23)	
	Class time/details on ELMs	ONLINE	Lab
	Must be in Public Health Practice and Policy, Online. Golden ID students are not eligible for this section.		
PLK1	Jamie Trevitt	Seats (Total: 5)	
	Class time/details on ELMs	ONLINE	Lab
	Must be in Physical Activity, Online (MPH). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

SPHL612 **Research Ethics**

Restriction: Must be a graduate student in the School of Public Health. Credit only granted for: EPIB641, KNES689Y or SPHL612. Formerly: EPIB641, KNES689Y.

Overview and discussion of ethical issues that face public health researchers.

0101	James Hagberg	Seats (Total: 12)	
	Meets August 28, 2023 - October 17, 2023		
	F 9:00am - 10:50am	SPH 0301	

SPHL620 **Leadership, Teams, and Coalitions: Policy to Advocacy**

Prerequisite: Must have completed SPHL610. Restriction: Must be a graduate student in the School of Public Health.

Students learn team building, leadership, and advocacy skills through the development and presentation of a policy brief on an urgent public health issue. The class will use a combination of brief lectures, discussions, and planned activities on how to develop a policy briefing. Students will have an inter-professional experience during which they will discuss possible approaches to developing policies on their public health issues while practicing team building skills. Class will culminate with presentation of policy briefs through a persuasive advocacy speech.

0101	Danielle Catona	Seats (Total: 90)	
	M 6:45pm - 8:45pm	ATL 2400	
	Class time/details on ELMs	ONLINE	

PLB1	Sherry Maykrantz	Seats (Total: 17)	
	Class time/details on ELMs	ONLINE	
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		
PLH1	Sherry Maykrantz	Seats (Total: 27)	
	Class time/details on ELMs	ONLINE	
	Must be in Public Health Practice and Policy, Online. Golden ID students are not eligible for this section.		
PLP1	Sherry Maykrantz	Seats (Total: 3)	
	Class time/details on ELMs	ONLINE	
	Must be in Health Administration, Online. Golden ID students are not eligible for this section.		

STAT Statistics and Probability Fall 2023

STAT100 **Elementary Statistics and Probability**

Prerequisite: MATH110, MATH112, MATH113, or MATH115; or permission of CMNS-Mathematics department; or must have math eligibility of STAT100 or higher and math eligibility is based on the Math Placement Exam or the successful completion of Math 003 with appropriate eligibility. Restriction: Must not have completed MATH111; or must not have completed any STAT course with a prerequisite of MATH141. Cross-listed with: DATA100. Credit only granted for: DATA100 or STAT100.

Simplest tests of statistical hypotheses; applications to before-and-after and matched pair studies. Events, probability, combinations, independence. Binomial probabilities, confidence limits. Random variables, expected values, median, variance. Tests based on ranks. Law of large numbers, normal approximation. Estimates of mean and variance.

0111	Matthew Griffin	Seats (Total: 30)	
	MWF 11:00am - 11:50am M 9:30am - 10:45am	ESJ 0202 PHY 4206	Discussion
0112	Matthew Griffin	Seats (Total: 31)	
	MWF 11:00am - 11:50am M 12:30pm - 1:45pm	ESJ 0202 PHY 4206	Discussion
0121	Matthew Griffin	Seats (Total: 30)	
	MWF 11:00am - 11:50am Tu 9:30am - 10:45am	ESJ 0202 PHY 4206	Discussion

0122	Matthew Griffin MWF 11:00am - 11:50am Tu 11:00am - 12:15pm	Seats (Total: 31) ESJ 0202 PHY 4206	Discussion
0123	Matthew Griffin MWF 11:00am - 11:50am Tu 12:30pm - 1:45pm	Seats (Total: 31) ESJ 0202 PHY 4206	Discussion
0124	Matthew Griffin MWF 11:00am - 11:50am Tu 2:00pm - 3:15pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0131	Matthew Griffin MWF 11:00am - 11:50am W 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0141	Matthew Griffin MWF 11:00am - 11:50am Th 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0211	Matthew Griffin MWF 12:00pm - 12:50pm M 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0212	Matthew Griffin MWF 12:00pm - 12:50pm M 2:00pm - 3:15pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0221	Matthew Griffin MWF 12:00pm - 12:50pm Tu 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 MTH 0105	Discussion
0222	Matthew Griffin MWF 12:00pm - 12:50pm Tu 11:00am - 12:15pm	Seats (Total: 31) ESJ 0202 EGR 2116	Discussion
0223	Matthew Griffin MWF 12:00pm - 12:50pm Tu 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0202 ARC 1105	Discussion

0224	Matthew Griffin MWF 12:00pm - 12:50pm Tu 2:00pm - 3:15pm	Seats (Total: 30) ESJ 0202 ARC 1105	Discussion
0231	Matthew Griffin MWF 12:00pm - 12:50pm W 9:30am - 10:45am	Seats (Total: 31) ESJ 0202 PHY 4206	Discussion
0241	Matthew Griffin MWF 12:00pm - 12:50pm Th 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0311	Archana Khurana MWF 2:00pm - 2:50pm M 11:00am - 12:15pm	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0312	Archana Khurana MWF 2:00pm - 2:50pm M 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0321	Archana Khurana MWF 2:00pm - 2:50pm W 11:00am - 12:15pm	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0322	Archana Khurana MWF 2:00pm - 2:50pm W 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0331	Archana Khurana MWF 2:00pm - 2:50pm Th 9:30am - 10:45am	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0333	Archana Khurana MWF 2:00pm - 2:50pm Th 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
FC01	Ishfaaq Mohammed Imtiyas MW 3:00pm - 4:15pm Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) ESJ 1224 PHY 0405	Discussion

FC02	Ishfaaq Mohammed Imtiyas MW 3:00pm - 4:15pm Th 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) ESJ 1224 PHY 0405	Discussion

STAT110 **Applications of R for Data Science**

Prerequisite: DATA100, STAT100, or MATH135; or any 400-level STAT course. Cross-listed with: DATA110. Credit only granted for: STAT110 or DATA110.

Intended to prepare students for subsequent courses requiring computation with R, providing powerful and easy to use tools for statistical data analysis. Covers basics of R and R Studio including file handling, data simulation, graphical displays, vector and function operations, probability distributions, and inferential techniques for data analysis.

0101	Susan Mazzullo **Meets August 28, 2023 - October 20, 2023** Class time/details on ELMs	Seats (Total: 120) ONLINE

STAT386 **Experiential Learning**

(Perm req)

Prerequisite: Must have learning proposal approved by the CMNS-Mathematics Department.

2801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
3903	Antoine Mellet Contact instructor or department for details.	Seats (Total: 10)
5001	Paul Smith Contact instructor or department for details.	Seats (Total: 10)

STAT400 **Applied Probability and Statistics I**

Prerequisite: 1 course with a minimum grade of C- from (MATH131, MATH141); or students who have taken courses with comparable content may contact the department. Cross-listed with: DATA400. Credit only granted for: DATA400, ENEE324, or STAT400. Additional information: Not acceptable toward graduate degrees in MATH/STAT/AMSC.

Random variables, standard distributions, moments, law of large numbers and central limit theorem. Sampling methods, estimation of parameters, testing of hypotheses.

0111	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 1:00pm - 1:50pm	Seats (Total: 26) ESJ 0224 MTH 0104	Discussion
0112	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 1:00pm - 1:50pm	Seats (Total: 26) ESJ 0224 MTH 0304	Discussion
0113	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 1:00pm - 1:50pm	Seats (Total: 26) ESJ 0224 HBK 0103	Discussion
0121	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 2:00pm - 2:50pm	Seats (Total: 26) ESJ 0224 MTH 0104	Discussion
0122	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 2:00pm - 2:50pm	Seats (Total: 26) ESJ 0224 MTH 0304	Discussion
0123	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 2:00pm - 2:50pm	Seats (Total: 26) ESJ 0224 HBK 0103	Discussion
0131	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 3:00pm - 3:50pm	Seats (Total: 26) ESJ 0224 MTH 0104	Discussion
0132	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 3:00pm - 3:50pm	Seats (Total: 26) ESJ 0224 MTH 0304	Discussion
0133	Jonathan Fernandes MWF 12:00pm - 12:50pm Tu 3:00pm - 3:50pm	Seats (Total: 26) ESJ 0224 HBK 0103	Discussion
0211	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH B0427	Discussion

0212	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0304	Discussion
0213	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 9:00am - 9:50am	Seats (Total: 29) ARM 0126 PHY 2214	Discussion
0221	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH B0427	Discussion
0222	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 10:00am - 10:50am	Seats (Total: 30) ARM 0126 MTH 0304	Discussion
0223	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 10:00am - 10:50am	Seats (Total: 29) ARM 0126 PHY 2214	Discussion
0231	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH B0427	Discussion
0232	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH 0304	Discussion
0233	Dmitry Dolgopyat TuTh 9:30am - 10:45am M 11:00am - 11:50am	Seats (Total: 30) ARM 0126 PHY 2214	Discussion
0311	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 8:00am - 8:50am	Seats (Total: 29) ARM 0126 PHY 2214	Discussion
0312	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 8:00am - 8:50am	Seats (Total: 30) ARM 0126 MTH B0423	Discussion

0313	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 8:00am - 8:50am	Seats (Total: 29) ARM 0126 MTH 0103	Discussion
0321	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 9:00am - 9:50am	Seats (Total: 30) ARM 0126 PHY 2214	Discussion
0322	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH B0423	Discussion
0323	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0103	Discussion
0331	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 10:00am - 10:50am	Seats (Total: 30) ARM 0126 PHY 2214	Discussion
0332	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH B0423	Discussion
0333	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm W 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH 0103	Discussion
0411	Hatice Sahinoglu MWF 12:00pm - 12:50pm Th 1:00pm - 1:50pm	Seats (Total: 28) IRB 0318 MTH 0304	Discussion
0412	Hatice Sahinoglu MWF 12:00pm - 12:50pm Th 2:00pm - 2:50pm	Seats (Total: 28) IRB 0318 MTH 0304	Discussion
0413	Hatice Sahinoglu MWF 12:00pm - 12:50pm Th 3:00pm - 3:50pm	Seats (Total: 28) IRB 0318 MTH 0304	Discussion

STAT401 Applied Probability and Statistics II

Prerequisite: 1 course with a minimum grade of C- from (STAT400, STAT410). Additional information: Not acceptable toward graduate degrees in MATH/STAT/AMSC.

Point estimation - unbiased and consistent estimators. Interval estimation. Minimum variance and maximum likelihood estimators. Testing of hypotheses. Regression, correlation and analysis of variance. Sampling distributions. Elements of non-parametric methods.

0111	Jonathan Fernandes MWF 2:00pm - 2:50pm Th 8:00am - 8:50am	Seats (Total: 27) CSI 2117 PHY 2208	Discussion
0112	Jonathan Fernandes MWF 2:00pm - 2:50pm Th 9:00am - 9:50am	Seats (Total: 27) CSI 2117 PHY 2208	Discussion
0113	Jonathan Fernandes MWF 2:00pm - 2:50pm Th 10:00am - 10:50am	Seats (Total: 27) CSI 2117 PHY 2208	Discussion
0201	Archana Khurana MWF 12:00pm - 12:50pm	Seats (Total: 33) MTH B0421	
0301	Mestiyage Gunatilleka TuTh 11:00am - 12:15pm	Seats (Total: 34) EGR 3106	
0401	Matthias Wellershoff TuTh 2:00pm - 3:15pm	Seats (Total: 34) MTH 0303	

STAT410 Introduction to Probability Theory

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Cross-listed with: SURV410. Credit only granted for: STAT410 or SURV410.

Probability and its properties. Random variables and distribution functions in one and several dimensions. Moments. Characteristic functions. Limit theorems.

0101	Wiseley Wong MWF 10:00am - 10:50am	Seats (Total: 35) PHY 2122	
0201	Terence Long MWF 1:00pm - 1:50pm	Seats (Total: 35) PHY 2208	

0301	Shalin Parekh MWF 2:00pm - 2:50pm	Seats (Total: 33) PHY 2208
0401	Mestiyage Gunatilleka TuTh 9:30am - 10:45am	Seats (Total: 35) MTH B0421
0501	Sandra Cerrai TuTh 11:00am - 12:15pm	Seats (Total: 33) TWS 1107
0601	Dmitry Dolgopyat TuTh 12:30pm - 1:45pm	Seats (Total: 25) MTH B0421

STAT420 **Theory and Methods of Statistics**

Prerequisite: 1 course with a minimum grade of C- from (SURV410, STAT410). Cross-listed with: SURV420. Credit only granted for: STAT420 or SURV420.

Point estimation, sufficiency, completeness, Cramer-Rao inequality, maximum likelihood. Confidence intervals for parameters of normal distribution. Hypothesis testing, most powerful tests, likelihood ratio tests. Chi-square tests, analysis of variance, regression, correlation. Nonparametric methods.

0101	Joan Ren TuTh 2:00pm - 3:15pm	Seats (Total: 25) MTH 0402
0201	Jian Lun Xu TuTh 5:00pm - 6:15pm	Seats (Total: 35) PHY 2106

STAT426 **Introduction to Data Science and Machine Learning**

Prerequisite: Minimum grade of C- in MATH241 or MATH340; and minimum grade of C- in MATH240, MATH461 or MATH341; and minimum grade of C- in STAT400 or STAT410; students who have taken courses with content comparable to STAT400/410 may request permission of the instructor. Credit only granted for: STAT426 or CMSC320.

An introductory course to the recent developments in the fields of data science and machine learning. Emphasis will be given to mathematical and statistical understanding of commonly used methods and processes.

0101	Deep Ray TuTh 12:30pm - 1:45pm	Seats (Total: 30) MTH 0306

STAT430 **Introduction to Statistical Computing with SAS**

Prerequisite: 1 course with a minimum grade of C- from (STAT400, STAT410); and must have completed or be concurrently enrolled in STAT401 or STAT420; students who do not meet the STAT401 or STAT420 requirement but who have taken a statistics course may contact the math department to confirm eligibility.

Descriptive and inferential statistics. SAS software: numerical and graphical data summaries; merging, sorting and splitting data sets. Least squares, regression, graphics and informal diagnostics, interpreting results. Categorical data, lifetime data, time series. Applications to engineering, life science, business and social science.

0101	Timothy Pilachowski MWF 9:00am - 9:50am	Seats (Total: 33) PHY 2208
0301	Hatice Sahinoglu MWF 1:00pm - 1:50pm	Seats (Total: 25) MTH 0105
0401	Tong Qi TuTh 2:00pm - 3:15pm	Seats (Total: 33) MTH 0306
0501	Christine Nickel TuTh 5:00pm - 6:15pm	Seats (Total: 33) PHY 2214

STAT440 **Sampling Theory**

Prerequisite: 1 course with a minimum grade of C- from (STAT401, STAT420). Credit only granted for: STAT440 or SURV440.

Simple random sampling. Sampling for proportions. Estimation of sample size. Sampling with varying probabilities. Sampling: stratified, systematic, cluster, double, sequential, incomplete.

0101	Natalia Tchetcherina MWF 10:00am - 10:50am	Seats (Total: 33) PHY 1204
0201	Natalia Tchetcherina MWF 11:00am - 11:50am	Seats (Total: 35) PHY 1204

STAT464 **Introduction to Biostatistics**

Prerequisite: Must have completed one semester of calculus. Restriction: Junior standing or higher. Credit only granted for: BIOE372 or STAT464. Additional information: Not acceptable toward degrees in MATH/STAT.

Probabilistic models. Sampling. Some applications of probability in genetics. Experimental designs. Estimation of effects of treatments. Comparative experiments. Fisher-Irwin test. Wilcoxon tests for paired comparisons.

0101	Raluca Rosca MWF 1:00pm - 1:50pm	Seats (Total: 25) PHY 2211

STAT470 **Actuarial Mathematics**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Recommended: STAT400.

Major mathematical ideas involved in calculation of life insurance premiums, including compound interest and present valuation of future income streams; probability distribution and expected values derived from life tables; the interpolation of probability distributions from values estimated at one-year multiples; the 'Law of Large Numbers' describing the regular probabilistic behavior of large populations of independent individuals; and the detailed calculation of expected present values arising in insurance problems.

0101	Natalia Tchetcherina MWF 1:00pm - 1:50pm	Seats (Total: 30) MTH 1313
0201	Matthew Griffin MWF 2:00pm - 2:50pm	Seats (Total: 33) MTH B0421

STAT498A **Selected Topics in Statistics**

(Perm req)

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the MATH/STAT major committee. Students register for reading in statistics under this number.

Contact department for information to register for this course.

STAT498J **Selected Topics in Statistics; Probability Models**

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the MATH/STAT major committee. Students register for reading in statistics under this number.

Prerequiste: STAT410. Random variables, joint distributions, hierarchical models, Markov chains, Poisson process. This course will have a substantial R-component, resources and support will be provided.

0101	Jonathan Fernandes MW 3:00pm - 4:15pm	Seats (Total: 20) PHY 2122

STAT600 **Probability Theory I**

Prerequisite: STAT410.

Probability space; distribution functions and densities; Poissson limit theoreom; de Moivre-Laplace theorem; measure-theoretic definition of expectation; classification of measures on R; convergence of random variables; Radon-Nikodym theorem;LP spaces; conditional probabilities; independence of events, sigma-algebras and random variables; Bayes' theo rem; pi-systems and Dynkin systems; discrete Markov chains; random walks; gambler's ruin problem; Markov chains on a general phase space; Borel-cantelli lemmas; Kolmogorov inequality; three series theorem; laws of large numbers.

0101	Leonid Koralov	Seats (Total: 35)
	MWF 11:00am - 11:50am	EGR 3106

STAT689 **Research Interactions in Statistics**

(Perm req)

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

STAT700 **Mathematical Statistics I**

Prerequisite: STAT410; or students who have taken courses with comparable content may contact the department.

Sampling distributions including noncentral chi-squared, t, F. Exponential families, completeness. Sufficiency, factorization, likelihood ratio. Decision theory, Bayesian methods, minimax principle. Point estimation. Lehmann-Scheffe and Cramer-Rao theorems. Set estimation.

Offered fall only.

0101	Joan Ren	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	MTH 1311

STAT705 **Computational Statistics**

Prerequisite: STAT700 or STAT420. Recommended: Have some programming experience (any language). Credit only granted for: STAT705 or STAT798C. Formerly: STAT798C.

Modern methods of computational statistics and their application to both practical problems and research. S-Plus and SAS programming with emphasis on S-Plus. S-Plus objects and functions, and SAS procedures. Topics include data management and graphics, Monte Carlo and simulation, bootstrapping, numerical optimization in statistics, linear and generalized linear models, nonparametric regression, time series analysis.

0101	Takumi Saegusa	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	EGR 1102

STAT740 **Linear Statistical Models I**

Prerequisite: STAT700 or STAT420.

Least squares, general linear models, estimability and Gauss-Markov theorem. Simple and multiple linear regression, analysis of residuals and diagnostics, polynomial models, variable selection. Qualitative predictors, one and two way analysis of variance, multiple comparisons, analysis of covariance. Nonlinear least squares. High-level statistical computer software will be used for data analysis throughout the course.

0101	Benjamin Kedem	Seats (Total: 25)
	MWF 2:00pm - 2:50pm	MTH 0104

STAT750 **Multivariate Analysis**

Prerequisite: STAT700 or STAT420.

Multivariate normal, Wishart's and Hotelling's distributions. Tests of hypotheses, estimation. Generalized distance, discriminant analysis. Regression and correlation. Multivariate analysis of variance; distribution of test criteria. Principal components, canonical correlations and factor analysis.

0101	Partha Lahiri	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	MTH 0105

STAT799 **Master's Thesis Research**
Contact department for information to register for this course.

STAT808A **Selected Topics in Probability**

Advanced topics of current interest.

Contact department for information to register for this course.

STAT808P **Selected Topics in Probability; Perturbation Theory for Stochastic Systems**

Advanced topics of current interest.

0101	Mark Freidlin, Mark Freidlin	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	MTH 1308

STAT818A **Selected Topics in Statistics**

Advanced topics of current interest.

Contact department for information to register for this course.

STAT898 **Pre-Candidacy Research**
Contact department for information to register for this course.

STAT899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

SURV400 **Fundamentals of Survey and Data Science**

(Perm req)

Prerequisite: STAT100; or permission of BSOS-Joint Program in Survey Methodology department. Restriction: Course open to SURV certificate students, SURV Advanced Special Students, and SURV undergraduate minors. Graduate students from other departments may enroll with permission from the department. Credit only granted for: SURV699M or SURV400. Formerly: SURV699M.

The course introduces the student to a set of principles of survey and data science that are the basis of standard practices in these fields. The course exposes the student to key terminology and concepts of collecting and analyzing data from surveys and other data sources to gain insights and to test hypotheses about the nature of human and social behavior and interaction. It will also present a framework that will allow the student to evaluate the influence of different error sources on the quality of data.

0101	Robyn Ferg TuTh 9:30am - 10:45am	Seats (Total: 20) LEF 2208
PLS1	Ruben Bach **Meets September 6, 2023 - November 29, 2023** W 11:00am - 12:00pm Class time/details on ELMs *Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.*	Seats (Total: 20) ONLINE ONLINE

SURV410 **Introduction to Probability Theory**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Cross-listed with: STAT410. Credit only granted for: STAT410 or SURV410.

Probability and its properties. Random variables and distribution functions in one and several dimensions. Moments. Characteristic functions. Limit theorems.

0101	Wiseley Wong MWF 10:00am - 10:50am	Seats (Total: 35) PHY 2122
0201	Terence Long MWF 1:00pm - 1:50pm	Seats (Total: 35) PHY 2208
0301	Shalin Parekh MWF 2:00pm - 2:50pm	Seats (Total: 33) PHY 2208

0401	Mestiyage Gunatilleka TuTh 9:30am - 10:45am	Seats (Total: 35) MTH B0421
0501	Sandra Cerrai TuTh 11:00am - 12:15pm	Seats (Total: 33) TWS 1107
0601	Dmitry Dolgopyat TuTh 12:30pm - 1:45pm	Seats (Total: 25) MTH B0421

SURV615 **Statistical Modeling and Machine Learning I**

Prerequisite: Must have basic R Programming skills; and must have completed a two course sequence in probability and statistics; or students who have comparable content may contact the department for permission. Restriction: Must be in Survey Methodology (Master's) program; or permission of instructor.

This is the first course in a two-term sequence in applied statistical methods and machine learning that are the basis in handling complex datasets. The topics covered include: overview on the quantitative research, linear regression, analysis of variance, inference, prediction, model diagnostics and selection and resampling methods. The emphasis will be to understand and apply the methods.

It runs concurrently with the University of Michigan course.

0101	John Kubale **Meets August 28, 2023 - December 8, 2023** Tu 9:30am - 12:00pm	Seats (Total: 20) LEF 1208
PCA1	John Kubale Tu 9:30am - 12:00pm *Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.*	Seats (Total: 10) LEF 1208

SURV617 **Applications of Statistical Modeling**

(Perm req)

Prerequisite: SURV615 and SURV616; or permission of instructor. Credit only granted for: SURV617, SURV746, or SURV699R. Formerly: SURV699R and SURV746.

Designed for students on both the social science and statistical tracks for the two programs in survey methodology, will provide students with exposure to applications of more advanced statistical modeling tools for both substantive and methodological investigations that are not fully covered in other MPSM or JPSM courses. Modeling techniques to be covered include multilevel modeling (with an application to methodological studies of interviewer effects), structural equation modeling (with an application of latent class models to methodological studies of measurement error), classification trees (with an application to prediction of response propensity), and alternative models for longitudinal data (with an application to panel survey data from the Health and Retirement Study). Discussions and examples of each modeling technique will be supplemented with methods for appropriately handling complex sample designs when fitting the models. The class will focus on practical applications and software rather than extensive theoretical discussions.

0101	Brady West	Seats (Total: 20)
	Meets August 28, 2023 - December 8, 2023	
	Tu 1:00pm - 3:30pm	LEF 2208

SURV621 **Fundamentals of Data Collection I**

Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

First semester of a two-semester sequence that provides a broad overview of the processes that generate data for use in social science research. Students will gain an understanding of different types of data and how they are created, as well as their relative strengths and weaknesses. A key distinction is drawn between data that are designed, primarily survey data, and those that are found, such as administrative records, remnants of online transactions, and social media content. The course combines lectures, supplemented with assigned readings, and practical exercises. In the first semester, the focus will be on the error that is inherent in data, specifically errors of representation and errors of measurement, whether the data are designed or found. The psychological origins of survey responses are examined as a way to understand the measurement error that is inherent in answers. The effects of the mode of data collection (e.g., mobile web versus telephone interview) on survey responses also are examined.

It runs concurrently with the University of Michigan course.

0101	Frederick Conrad, Christopher Antoun	Seats (Total: 25)
	Meets August 28, 2023 - December 8, 2023	
	M 1:00pm - 4:00pm	LEF 1208

SURV626 **Sampling**

(Perm req)

Prerequisite: Permission of BSOS-Joint Program in Survey Methodology department; and must have taken at least a graduate level statistics course or an undergraduate level advanced statistics course.

Practical aspects of sample design. The course will cover the main techniques used in sampling practice: simple random sampling, stratification, systematic selection, cluster sampling, multistage sampling, and probability proportional to size sampling. The course will also cover sampling frames, cost models, and sampling error (variance) estimation techniques.

PLS1	Raphael Nishimura	Seats (Total: 15)
	Meets October 5, 2023 - December 7, 2023	
	Th 12:00pm - 1:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV627 **Experimental Design and Causal Inference**

(Perm req)

Prerequisite: Basic knowledge of data analysis. Familiarity with the R programming language and the RStudio IDE. Recommended: Experience in the use of SAS or STATA statistical analysis software. Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

Many of the questions we are interested in as researchers and practitioners are of a causal nature. We act upon the world; how can we tell if our actions have impact? How can we decide if an intervention would get us closer to our goals? In this course, we introduce the basic concepts from causal inference and econometrics, and show what makes a valid causal claim, and what would undo it. We then demonstrate how experiments can be used to evaluate causal hypotheses, and what options are available to conduct experiments in practice. Having discussed experimental data collection, we turn to the analysis of experiments, show how this, again, is linked to the logic of causal inference, and how to work with experimental data. We discuss how to design studies so that statistical inferences are informative and reliable. Next, we cover situations in which experiments might not be possible, and show how these can be addressed through study design ex ante and ex post through analysis.

PLS1	Frauke Kreuter, Ashley Amaya	Seats (Total: 15)
	Meets August 29, 2023 - October 17, 2023	
	Tu 8:00am - 9:00am	ONLINE
	Class time/details on ELMs	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings. Golden ID students are not eligible for this section.	

SURV632 **Cognition, Communication and Survey Measurement**

Major sources of survey error-such as reporting errors and nonresponse bias-from the perspective of social and cognitive psychology and related disciplines. Topics: psychology of memory and its bearing on classical survey issues (e.g., underreporting and telescoping); models of language use and their implications for the interpretation and misinterpretation of survey questions; and studies of attitudes, attitude change, and their possible application to increasing response rates and improving the measurement of opinions. Theories and findings from the social and behavioral sciences will be explored.

Restricted to SURV majors only.

0101	Frederick Conrad **Meets August 28, 2023 - December 8, 2023** W 9:00am - 11:45am	Seats (Total: 15) LEF 1208

SURV650 **Economic Measurement**

Prerequisite: Must have completed a course in intermediate microeconomics. Credit only granted for: SURV650 or SURV699L. Formerly: SURV699L.

An introduction to the field of economic measurement. Sound economic data are of critical importance to policymakers, the business community, and others. Emphasis is placed on the economic concepts that underlie key economic statistics and the translation of those concepts into operational measures. Topics addressed include business survey sampling; the creation of business survey sampling frames; the collection of data from businesses; employment and earnings statistics; price statistics; output and productivity measures; the national accounts; and the statistical uses of administrative data. Lectures and course readings assume prior exposure to the tools of economic analysis.

Pre-taped lectures will be available for students to watch in advance of the scheduled class time. They will meet live via Webex for a weekly one-hour discussion.

SV01	Katharine Abraham Tu 9:00am - 10:00am Class time/details on ELMs	Seats (Total: 24) ONLINE ONLINE

SURV665 **Introduction to Real World Data Management**

(Perm req)

Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

Data is omnipresent in the contemporary world coming in different shapes and sized: from survey data to found data. In order to make use of such data through analysis it is necessary first to import and clean it. This is often one of the most time consuming and difficult parts of data analysis. In this course you will learn both the conceptual steps needed in preparing data for analysis as well as the practical skills to do this. The course will cover all the essential skills needed to prepare data be it survey data, administrative data or found data.

Basic knowledge of R and prior experience working with data is required for success in this course.

PLS1	Alexandru Cernat **Meets October 2, 2023 - December 6, 2023** M 3:00pm - 4:00pm Class time/details on ELMs *Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.*	Seats (Total: 15) ONLINE ONLINE

SURV673 **Introduction to Python and SQL**

(Perm req)

Recommended: Background knowledge in programming in Python and SQL structures.

Basics of Python and SQL for data analysis.Students will explore real publicly-available datasets, using the data analysis toolsin Python to create summaries and generate visualizations. Students will learn thebasics of database management and organization, as well as learn how to code inSQL and work with PostgreSQL databases. By the end of the class, students shouldunderstand how to read in data from CSV files or from the internet and becomfortable using either SQL or Python to aggregate, summarize, describe, andvisualize these datasets.

PLS1	Diego Fregolent Mendes de Oliveira **Meets September 7, 2023 - September 28, 2023** Th 12:00pm - 1:00pm Class time/details on ELMs *Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.*	Seats (Total: 17) ONLINE ONLINE
PLS2	Diego Fregolent Mendes de Oliveira **Meets September 5, 2023 - September 26, 2023** Tu 12:00pm - 1:00pm Class time/details on ELMs *Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.*	Seats (Total: 15) ONLINE ONLINE

SURV699 **Special Topics in Survey Methodology; Reading in Survey Methodology**

(Perm req)

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

0101	Partha Lahiri Contact instructor or department for details.	Seats (Total: 10)
0301	Stanley Presser Contact instructor or department for details.	Seats (Total: 10)
0401	Frauke Kreuter Contact instructor or department for details.	Seats (Total: 2)

SURV706 **General Linear Models**

Recommended: Sound understanding of Linear Regression Models, Calculus and Linear Algebra. Restriction: Must have permission of BSOS-Joint Program in Survey Methodology. Credit only granted for: SURV706 or SURV699J. Formerly: SURV699J.

The main focus of this course lies on the introduction to statistical models and estimators beyond linear regression useful to social and economic scientists. It provides an overview of generalized linear models (GLM) that encompass non-normal response distributions to model functions of the mean. GLMs thus relate the expected mean E(Y) of the dependent variable to the predictor variables via a specific link function. This link function permits the expected mean to be non-linearly related to the predictor variables. Examples for GLMs are the logistic regression, regressions for ordinal data, or regression models for count data. GLMs are generally estimated by use of maximum likelihood estimation. The course thus not only introduces GLMs but starts with an introduction to the principle of maximum likelihood estimation.

PLS1	Thomas Gautschi **Meets August 28, 2023 - October 16, 2023** M 12:00pm - 1:00pm Class time/details on ELMs *Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.*	Seats (Total: 15) ONLINE ONLINE

SURV720 **Total Survey Error and Data Quality I**

(Perm req)

Prerequisite: SURV625. Restriction: Permission of instructor. Credit only granted for: (SURV720 and SURV721) or SURV723. Formerly: SURV723.

Total error structure of sample survey data, reviewing current research findings on the magnitudes of different error sources, design features that affect their magnitudes, and interrelationships among the errors. Coverage, nonresponse, sampling, measurement, and postsurvey processing errors. For each error source reviewed, social science theories about its causes and statistical models estimating the error source are described. Empirical studies from the survey methodological literature are reviewed to illustrate the relative magnitudes of error in different designs. Emphasis on aspects of the survey design necessary to estimate different error sources. Relationships to show how attempts to control one error source may increase another source. Attempts to model total survey error will be presented.

It runs concurrently with the University of Michigan course.

0101	Sharan Sharma	Seats (Total: 20)
	Meets August 28, 2023 - December 8, 2023	
	M 10:20am - 12:15pm	LEF 1208

SURV726 **Multiple Imputation**

Prerequisite: Be comfortable with generalized linear models and basic probability theory through coursework or work experience; and familiarity with the statistical software R; and must have completed Surv 725 Item Nonresponse and Imputation or be familiar with the content through relevant work experience. Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

This course will provide a detailed introduction to multiple imputation, a convenient strategy for dealing with (item) nonresponse in surveys. We will motivate the concept and illustrate why multiple imputation should generally be preferred over single imputation methods. The main focus of the course will be on strategies to generate (multiple) imputations and how to deal with common problems when applying the methods for large scale surveys. We will also discuss various options for assessing the quality of the imputations. All concepts will be demonstrated using software illustrations in R.

PLS1	Joerg Drechsler	Seats (Total: 15)
	Meets November 8, 2023 - November 29, 2023	
	W 11:00am - 12:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV727 **Fundamentals of Computing and Data Display**

Restriction: Must be in a major within the BSOS-Joint Program in Survey Methodology department; or permission of BSOS-Joint Program in Survey Methodology department. Additional information: Students without any R knowledge are encouraged to work through one or more R web tutorials prior or during the first weeks of the course.

The first part of this course provides an introduction to web scraping and APIs for gathering data from the web and then discusses how to store and manage (big) data from diverse sources efficiently. The second part of the course demonstrates techniques for exploring and finding patterns in (non-standard) data, with a focus on data visualization. The course focuses on R as the primary computing environment, with excursus into SQL and Big Data processing tools.

It runs concurrently with the University of Michigan course.

0101	Brian Kim W 1:30pm - 4:00pm	Seats (Total: 20) LEF 1208
PCA1	Christoph Kern, Brian Kim W 1:30pm - 4:00pm	Seats (Total: 10) LEF 1208
	Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

SURV740 **Fundamentals of Inference**

Prerequisite: SURV410 and SURV420; or (SURV615 and SURV616); or permission of Instructor required. Restriction: Must be in a major within the BSOS-Joint Program in Survey Methodology department; or permission of BSOS-Joint Program in Survey Methodology department.

Focuses on the fundamentals of statistical inference in the finite population setting. Overview and review fundamental ideas of making inferences about populations. Basic principles of probability sampling; focus on differences between making predictions and making inferences; explore the differences between randomized study designs and observational studies; consider model-based vs. design-based analytic approaches; review techniques designed to improve efficiency using auxiliary information; and consider non-probability sampling and related inferential techniques.

It runs concurrently with the University of Michigan course.

0101	James Wagner, Yan Li **Meets August 28, 2023 - December 8, 2023** F 1:00pm - 4:00pm	Seats (Total: 20) LEF 1208
PCA1	Yan Li, James Wagner F 1:00pm - 4:00pm	Seats (Total: 10) LEF 1208
	Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

SURV753 **Machine Learning II**

(Perm req)

Prerequisite: SURV751; or comparable knowledge or experience. Recommended: Familiarity with the statistical programming language R.

Social scientists and survey researchers are confronted with an increasing number of new data sources such as apps and sensors that often result in (para)data structures that are difficult to handle with traditional modeling methods. At the same time, advances in the field of machine learning (ML) have created an array of flexible methods and tools that can be used to tackle a variety of modeling problems. Against this background, this course discusses advanced ML concepts such as cross validation, class imbalance, Boosting and Stacking as well as key approaches for facilitating model tuning and performing feature selection. In this course we also introduce additional machine learning methods including Support Vector Machines, Extra-Trees and LASSO among others. The course aims to illustrate these concepts, methods and approaches from a social science perspective. Furthermore, the course covers techniques for extracting patterns from unstructured data as well as interpreting and presenting results from machine learning algorithms. Code examples will be provided using the statistical programming language R.

PLS1	Christoph Kern, Trent Buskirk	Seats (Total: 15)
	Meets September 22, 2023 - November 10, 2023	
	F 11:00am - 12:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV829 **Doctoral Research Seminar in Survey Methodology**

An advanced research seminar for students preparing to do research or take doctoral comprehensive examinations.

0101	Stanley Presser, Sunghee Lee	Seats (Total: 10)
	Meets August 28, 2023 - December 8, 2023	
	W 2:00pm - 4:30pm	LEF 1218

SURV898 **Pre-Candidacy Research**
Contact department for information to register for this course.

SURV899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

TDPS Theatre, Dance and Performance Studies Fall 2023

TDPS201 **Introduction to Technical Production**

(Perm req)

Restriction: Must be in a major within the ARHU-Dance department; or must be in a major within the ARHU-Theatre department. Credit only granted for: DANC210 and THET114 or TDPS201. Formerly: DANC210 and THET114.

Students are provided with an overview of topics related to the technical production of theatre and dance including: scenic, prop and costume construction, lighting, sound and video execution and management structures.

Students must pay a $25.00 lab fee.

5501	Michael Driggers	Seats (Total: 25)	
	MW 4:00pm - 4:50pm	PAC 1809	
	F 3:30pm - 5:30pm	PAC 1702	Lab

TDPS258C **Special Topics in Introductory Performing Arts; Cultural Institutions in the United States**

Designed for performing arts students. Offers instruction at the introductory level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

Cross-listed with ARHU240. Credit granted for TDPS258C or ARHU240.

0101	Kate Keeney	Seats (Total: 25)
	MW 10:00am - 11:15am	ONLINE

TDPS358T **Special Topics in Intermediate Performing Arts; Technology for Performing Arts: Theory and Practice**

Designed for performing arts students. Offers instruction at the intermediate level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

Students must pay a $25 lab fee. An introduction to experimental technology systems, and how to adapt them for use in live performance. Students will be introduced to a variety of new media tools.

5501	Andrew Cissna	Seats (Total: 12)
	TuTh 11:00am - 12:15pm	PAC 2733

TDPS458F **Special Topics in Advanced Performing Arts; Aesthetics of Collaboration in Performance: Theory & Practice**

Designed for performing arts students. Offers instruction at an advanced level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

This class offers practical methods for the creation and analysis of collaborative performance projects. Taking for granted that all performance works engage collaboration, this class is organized around themes of media, materiality, site-specificity, and working within and against systems. These themes are the organizing principles for student projects, as well as exemplary works of theory and performance. Finally, this class, being about collaboration, looks at strategies for working together, and carries with it an ethic of kindness, constructive critique, and mutual support.

0101	Kate Ladenheim MW 2:30pm - 3:45pm	Seats (Total: 15) PAC 1809

TDPS469 **Advanced Practicum in Stage Management**

(Perm req)

A graded course in stage management for theatre and/or dance productions. A hands-on laboratory experience.

0101	Jenn Schwartz Contact instructor or department for details.	Seats (Total: 8)

TDPS470 **Production Management**

(Perm req)

Prerequisite: TDPS201, THET222, THET223, and THET116; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

To familiarize students with techniques and skills required of a Production Manager in a theatrical production. Focus will also be given to the field of event management.

0101	Jenn Schwartz TuTh 1:30pm - 2:45pm	Seats (Total: 10) PAC 1924

TDPS479 **Production Practicum**

(Perm req)

A graded course in a specified practical aspect of mounting a theatre or dance production. It is a hands-on, purely laboratory experience.

1001	Andrew Cissna Contact instructor or department for details.	Seats (Total: 25)
1002	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1003	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)

1004	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1005	Andrew Cissna Contact instructor or department for details.	Seats (Total: 60)
1006	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
1007	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
2001	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2002	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2003	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2004	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2005	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2006	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)

THET Theatre Fall 2023

THET110 **Introduction to the Theatre**

In the age of pop music and blockbuster films, of memes and viral videos, we often forget that theatre was one of the original forms of popular entertainment. We will focus on theatre practitioners including actors, directors, designers and backstage personnel to understand how theatre is produced. We will also consider popular entertainment in Europe and America, with a particular focus on musical theatre and Broadway to explore how theatre communicates, resonates, and remains relevant to all audiences.

0101	Eran Eads MWF 11:00am - 11:50am	Seats (Total: 25) SQH 1101
0201	Carla Della Gatta MWF 12:00pm - 12:50pm	Seats (Total: 40) TWS 0214

0401	Caitlin Marshall TuTh 11:00am - 12:15pm	Seats (Total: 40) ESJ 1309
0501	Jared Strange TuTh 9:00am - 10:15am	Seats (Total: 30) ONLINE
0601	Caitlin Marshall TuTh 2:00pm - 3:15pm	Seats (Total: 40) EGR 1108
0701	Kristopher Pourzal MWF 2:00pm - 2:50pm	Seats (Total: 25) KEY 0102
FC01	Lisa Nathans TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) PAC 1809

THET116 **Fundamentals of Theatrical Design**

(Perm req)

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Examines theatre as an environmental art that is realized through collaboration between set, costume, and lighting designers.

Students must pay a $25.00 lab fee.

5501	Cody Von Ruden, Luis Garcia, Christina Laverty TuTh 3:00pm - 4:50pm	Seats (Total: 20) PAC 2733

THET222 **Foundations of Acting and Performance**

(Perm req)

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Students will become familiar with the tools and process of acting through the discipline of acting exercises, analyzing character and performing. Students will research various theatre artists that have contributed to the acting process. Through monologue and scene work students will learn listening skills, communicative, collaborative and embodiment skills and will learn how to use the self in the imaginative process and research. And, most importantly, students will learn creative process through practice.

Students must pay a $25.00 lab fee.

5501	Scot Reese MW 10:00am - 11:50am	Seats (Total: 14) PAC 3730	Lab

THET223 **Text and Context in Western Theatre**

(Perm req)

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Introduction to the analysis and critique of the play script. Students will have the opportunity to read, analyze, and interpret western dramatic literature from a range of periods and styles. Texts are analyzed from a variety of theatrical analytical perspectives, with an eye towards choices theatre artists must make in the creation of a theatrical production.

0101	Melissa Sturges MW 1:00pm - 2:15pm	Seats (Total: 20) PAC 1809

THET269B **Special Topics in Study Abroad II; The Meaning of Style**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET269T **Special Topics in Study Abroad II; 20th Century and Contemporary Spanish Theatre**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET285 **The Art of Communication and Presentation**

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, or THET285.

An introduction to the fundamental practice and theory of public speaking and oral communication using theatrical techniques of both performance and the craft of storytelling.

0101	Robert Smith MW 3:30pm - 4:50pm	Seats (Total: 25) PAC 3736
0103	Robert Smith MW 1:00pm - 2:50pm	Seats (Total: 25) PAC 3736
FC01	Drew Barker TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) PLS 1117
FC02	Jennifer Ring MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) KNI 1105

FC04	Drew Barker TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) PLS 1117
FC06	Jennifer Ring MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) KNI 1105

THET286 **Experiential Learning I**

(Perm req)

Prerequisite: THET222, THET223, and THET116. And THET114; or TDPS201. And permission of ARHU-School of Theatre, Dance & Performance Studies department.

Introductory internship in theatre. Constructed to help students in their sophomore year gain practical experience in a supportive work environment in the theatre. Student must research and propose internship to a Faculty Advisor and Internship Venue.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0210	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0301	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
0401	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
0501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0601	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
0901	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)

1301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
1501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
1601	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
1701	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
1801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2001	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
2003	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
2005	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2007	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

THET287 **Subversive Cultures and Performance**

Credit only granted for: THET289I or THET287. Formerly: THET289I.

Every society has rebels - those who refuse to conform to the mainstream's rigid rules, aesthetics, and beliefs. From unruly skateboarders, punk rockers, bohemian poets, and radical theater performers, to national revolutionary movements and brick-throwing anarchists - such groups form niches that are defined by their exclusion from society. We will look at how their beliefs and actions fit into a particular historical context, and how their actions drive social change.

0101	Van Tran Nguyen MW 11:30am - 12:45pm	Seats (Total: 30) PLS 1117

THET293 **Black Theatre and Performance I**

Thematic and historical survey of African-American drama from the late nineteenth century to the 1960s. Emphasis on sociopolitical context, thematic thrust, issues, styles, the aesthetic reflected in the work, impact on African-American and general theatre audiences.

0101	Matre Grant	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm	SPH 0303	

THET310 **Voice for the Actor I**

(Perm req)

Prerequisite: THET116, THET222, THET223, and TDPS201; and must Interview; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Sophomore standing or higher.

Freeing the natural voice. In-depth experience of connection of actor's voice to thought, impulse and emotion. Tools for releasing tension, increasing resonance and range, and refining articulation will be explored.

Students must pay a $25.00 lab fee.

5501	Lisa Nathans	Seats (Total: 12)	
	TuTh 10:00am - 11:50am	PAC 3730	Lab

THET325 **Actor's Process I**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in THET310; or permission of Instructor. And must audition; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

Focus on use of self in creating character. Tools employed include decision-making and use of imagery, personalization, objectives, adjectives, and verbs.

Students must pay a $25.00 lab fee.

5501	KenYatta Rogers	Seats (Total: 14)	
	TuTh 10:00am - 11:50am	PAC 3732	Lab

THET326 **Viewpoints**

(Perm req)

Prerequisite: THET222, THET223, THET116, and TDPS201; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET328V or THET326. Formerly: THET328V.

Viewpoints is a movement-based performance course for students who already have a foundation in the basics of acting and/or dance. The Viewpoints are a set of tools and vocabulary; using 9 categories of time and space, students will fully explore the possibilities of using their physical instruments (the body) to their fullest on stage.

Students must pay a $25 lab fee.

5501	Jennifer Newsham	Seats (Total: 14)	
	TuTh 2:00pm - 3:50pm	PAC 3736	

THET328L **Special Topics in Intermediate Theatre and Performance; Acting for Digital and Live Performance**

Topics covered include: Intercultural Theatre, Performance Art, Puppetry, Solo Performance, or Theatrical Design.

5501	Fatima Quander	Seats (Total: 12)	
	MW 10:00am - 11:50am	PAC 3736	Lab

THET330 **Play Directing I**

(Perm req)

Prerequisite: THET222, THET223, and THET116. And THET114; or TDPS201. And permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Junior standing or higher.

A lecture-laboratory course dealing with the techniques of coordinating, designing and guiding the production of a script through to performance. Study and practice in stage composition, movement, pacing, script and character analysis, and rehearsal routines. Emphasis on methods of communicating a script to an audience.

5501	KenYatta Rogers	Seats (Total: 10)	
	MW 10:00am - 11:50am	PAC 2740	Lab

THET340 **Playwriting I**

(Perm req)

Prerequisite: THET222, THET223, THET116, and TDPS201. Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET340 or THET399P. Formerly: THET399P.

Will introduce students to the art of playwriting through exploratory writing exercises, the reading of successful plays, the development of new short scripts, how to make theatrical choices, and how to use the six elements of storytelling.

5501	Jennifer Newsham	Seats (Total: 12)	
	MW 12:00pm - 1:50pm	PAC 1815	Lab

THET351 **Musical Theatre I**

(Perm req)

Credit only granted for: THET351 or THET328M. Formerly: THET328M.

An introduction for students interested in developing their skills with musical theatre, specifically the work of the actor interpreting songs and text in musicals. With a primary focus on American Musical Theatre repertoire, students will prepare and present various solo, duet, and group numbers.

5501	Scot Reese	Seats (Total: 12)	
	Tu 9:00am - 11:50am	PAC 2740	

THET369L **Special Topics in Study Abroad III; 20th Century and Contemporary Latin American Theatre**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET371 **Scenic Design I**

(Perm req)

Prerequisite: THET222, THET223, and THET116; and (THET114; or TDPS201). Or permission of ARHU-School of Theatre, Dance & Performance Studies department.

A study of design theory and style. Methods and techniques of coordination of all elements of scenic design for theatre.

5501	Misha Kachman	Seats (Total: 10)	
	MW 3:00pm - 4:50pm	PAC 2733	Lab

THET380 **Sound Design**

(Perm req)

Prerequisite: THET116. And THET114; or TDPS201; or permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Sophomore standing or higher.

Theatre Sound Design is a first course in designing sound for stage productions.

Students must pa a $25 lab fee.

5501	Samuel Crawford	Seats (Total: 10)
	TuTh 10:00am - 11:50am	PAC 2727

THET386 **Experiential Learning**

(Perm req)

Restriction: Junior standing or higher; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0201	Franklin Hildy Contact instructor or department for details.	Seats (Total: 5)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0401	Scot Reese Contact instructor or department for details.	Seats (Total: 5)
0501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0601	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0801	Leslie Felbain Contact instructor or department for details.	Seats (Total: 5)
0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
1101	Misha Kachman Contact instructor or department for details.	Seats (Total: 5)
1301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
1501	Lisa Nathans Contact instructor or department for details.	Seats (Total: 5)
1601	Daniel Conway Contact instructor or department for details.	Seats (Total: 5)
1701	Helen Huang Contact instructor or department for details.	Seats (Total: 5)
1801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2001	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

2002	KenYatta Rogers Contact instructor or department for details.	Seats (Total: 3)
2003	Jenn Schwartz Contact instructor or department for details.	Seats (Total: 5)
2005	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2007	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2009	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

THET390 **History of Theatre I**

(Perm req)

Prerequisite: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

The history of Western theatre from its origins in classical antiquity through the mid-seventeenth century with emphasis on plays and playwrights, architecture and decor, acting and costuming, and significant personalities. Includes explorations of interrelationships between Western theatre and the theatre of other cultures.

0101	Caitlin Marshall MW 11:30am - 12:45pm	Seats (Total: 20) PAC 1809

THET399 **Independent Study**

(Perm req)

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

0102	Samuel Crawford Contact instructor or department for details.	Seats (Total: 5)
0201	Franklin Hildy Contact instructor or department for details.	Seats (Total: 5)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

0401	Scot Reese Contact instructor or department for details.	Seats (Total: 5)
0501	Fatima Quander Contact instructor or department for details.	Seats (Total: 5)
0601	James Harding Contact instructor or department for details.	Seats (Total: 5)
0701	Jennifer Newsham Contact instructor or department for details.	Seats (Total: 5)
0801	Leslie Felbain Contact instructor or department for details.	Seats (Total: 5)
0901	Van Tran Nguyen Contact instructor or department for details.	Seats (Total: 5)
1101	Misha Kachman Contact instructor or department for details.	Seats (Total: 5)
1301	Amith Chandrashaker Contact instructor or department for details.	Seats (Total: 5)
1401	Caitlin Marshall Contact instructor or department for details.	Seats (Total: 5)
1501	Lisa Nathans Contact instructor or department for details.	Seats (Total: 5)
1601	Daniel Conway Contact instructor or department for details.	Seats (Total: 5)
1701	Helen Huang Contact instructor or department for details.	Seats (Total: 5)
1801	Andrew Cissna Contact instructor or department for details.	Seats (Total: 5)
2001	Kate Ladenheim Contact instructor or department for details.	Seats (Total: 5)
2002	KenYatta Rogers Contact instructor or department for details.	Seats (Total: 5)

2003	Jenn Schwartz Contact instructor or department for details.	Seats (Total: 5)
2005	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2007	Jared Mezzocchi Contact instructor or department for details.	Seats (Total: 5)
2009	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

THET399H **Independent Study; London Stage**

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399W **Independent Study; The London Stage**

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399X **Independent Study; The London Stage**

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET408C **Seminar: Theory and Performance Studies; Digital Narratives: Representation and Resistance**

Studies in theatre theory and performance studies from classical antiquity to the present.

Cross-listed with MITH498C. Credit only granted for THET408C or MITH498C.

0101	Van Tran Nguyen, Elizabeth Alexander TuTh 11:00am - 12:15pm	Seats (Total: 15) PAC 1809

THET408K **Seminar: Theory and Performance Studies; Installation, Curation, and Performance as Research**

Studies in theatre theory and performance studies from classical antiquity to the present.

A combination of discussion and workshop, this seminar will involve a hands-on examination of the principles and strategies involved in: 1) Constructing art installations. 2) Curating exhibits. 2) Presenting Researchin a performative format. Our work will be located at the intersection of these three forms with the specific objective of cultivating the critical tools of what we will call "three dimensional thinking." With thisobjective in mind, each student will work on a semester-long research project, which they will present in a "performative format" at the end of the semester.

0101	James Harding	Seats (Total: 15)	
	TuTh 2:00pm - 3:15pm	PAC 1815	

THET411 **Voice for the Actor II**

(Perm req)

Prerequisite: THET324 or THET325; and must audition; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Junior standing or higher. Credit only granted for: THET311, THET411, or THET499L. Formerly: THET311.

Learn the International Phonetic Alphabet (IPA) and apply to exploration of sound and language. Designed to increase voice and speech awareness, and create a base knowledge from which to approach any accent or dialect.

5501	Lisa Nathans	Seats (Total: 12)	
	TuTh 2:00pm - 3:50pm	PAC 2740	Lab
	Students must pay a $25 lab fee.		

THET428A **Special Topics in Advanced Theatre and Performance; Advanced Sound Design**

(Perm req)

This course is offered as part of the School of Theatre, Dance, and Performance Studies' Artist in Residence program. Topics covered may include: Intercultural Theatre; Performance Art; Puppetry; Solo Performance; or Theatrical Design.

Students must have completed THET380; or permission of instructor. Students must pay a $25 lab fee.

5501	Samuel Crawford	Seats (Total: 10)
	TuTh 1:30pm - 2:45pm	PAC 2727

THET428L **Special Topics in Advanced Theatre and Performance; Advanced Techniques Lighting Design: Programming**

(Perm req)

This course is offered as part of the School of Theatre, Dance, and Performance Studies' Artist in Residence program. Topics covered may include: Intercultural Theatre; Performance Art; Puppetry; Solo Performance; or Theatrical Design.

Required pre-requisite THET377. Students must pay a $25 lab fee.

5501	Christian Henrriquez	Seats (Total: 8)	
	TuTh 3:00pm - 4:50pm	PAC 3731	

THET429 **Actor's Studio**

(Perm req)

Participation in dramatic roles executed under faculty supervision in the department's productions. Eligible students must make commitments and plan performances with course instructor during pre-registration.

Contact department for information to register for this course.

THET477 **Design Studio in Lighting**

(Perm req)

Prerequisite: THET377; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Jointly offered with THET659. Credit only granted for: THET477 or THET659.

Designed for students who have successfully completed THET377 and wish to further develop their lighting design skills. Emphasis is on theoretical design of productions and realized light lab projects. Particular design projects will vary.

Students must pay a $25 lab fee.

5501	Amith Chandrashaker	Seats (Total: 3)	
	M 3:00pm - 5:50pm	PAC 3731	Lab

THET481 **Theatre Graphics II: Computer Assisted Design**

(Perm req)

Prerequisite: THET114 or TDPS201; and THET116; and permission of ARHU-Theatre department. Restriction: Sophomore standing or higher.

Study and practical application of computer generated graphical design for use in theatrical production.

Students must pay a $25 course fee.

5501	Andrew Cissna	Seats (Total: 3)	
	MW 10:00am - 11:50am	PAC 2727	Lab

THET499 **Independent Study**

(Perm req)

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499B **Independent Study; Figure Drawing**

(Perm req)

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Students must pay a $25 lab fee

5501	Susan O'Neill F 9:00am - 11:50am	Seats (Total: 16) PAC 3736

THET600 **Introduction to Graduate Research Methods**

(Perm req)

Restriction: Must be a graduate student in a Theatre program. Also offered as: THET700. Credit only granted for: THET600 or THET700. Additional information: Only students in the doctoral program may register for THET700.

Basic skills in theatre research.

0101	Carla Della Gatta MW 2:30pm - 3:45pm	Seats (Total: 12) PAC 1815

THET606 **Teaching Theatre**

(Perm req)

Strategies and materials for teaching a typical introductory course in theatre, with emphasis on specific problems of classroom instruction (e.g., creating a supportive climate, promoting active learning by students, constructing appropriate tests, adapting methods to content, and resolving discipline problems).

0101	Crystal Davis Tu 3:00pm - 4:15pm	Seats (Total: 18) PAC 3730

THET608F **Seminar: Theory and Performance Studies; Aesthetics of Collaboration in Performance: Theory & Practice**

A repeatable seminar on special topics in theory of the Theatre and Performance Studies.

This class offers practical methods for the creation and analysis of collaborative performance projects. Taking for granted that all performance works engage collaboration, this class is organized around themes of media, materiality, site-specificity, and working within and against systems. These themes are the organizing principles for student projects, as well as exemplary works of theory and performance. Finally, this class, being about collaboration, looks at strategies for working together, and carries with it an ethic of kindness, constructive critique, and mutual support.

0101	Kate Ladenheim	Seats (Total: 15)	
	MW 2:30pm - 3:45pm	PAC 1809	

THET608I **Seminar: Theory and Performance Studies; Auto-Ethnographies**

A repeatable seminar on special topics in theory of the Theatre and Performance Studies.

0101	Van Tran Nguyen	Seats (Total: 10)	
	M 4:00pm - 6:30pm	PAC 1815	

THET608K **Seminar: Theory and Performance Studies; Installation,Curation,and Performance as Research**

A repeatable seminar on special topics in theory of the Theatre and Performance Studies.

0101	James Harding	Seats (Total: 3)	
	TuTh 2:00pm - 3:15pm	PAC 1815	

THET639 **Graduate Design Studio - Scenery**

A repeatable course that allows students to progress in their design training through a series of carefully and individually structured assignments and projects.

5501	Daniel Conway	Seats (Total: 10)	
	M 9:00am - 11:50am	PAC 2733	Lab

THET649 **Graduate Design Studio - Costume**

A series of carefully and individually structured assignments and projects that allows students to progress in their design training.

Students must pay a $25 course fee. Class is for First, Second, and Third Year MFA students.

5501	Helen Huang	Seats (Total: 6)
	Tu 10:00am - 12:30pm	PAC 2755

THET659 **Graduate Design Studio - Lighting**

We will focus on connecting subject matter to light. Questions of meaning, structure, process, and intent will be investigated. The class will also explore the qualities and functions of light, what light can and cannot communicate. Students will develop a visual and conceptual vocabulary. Emphasis will be placed on process, both intellectual and practical.

Students must pay a $25 course fee. Contact instructor for days/times.

5501	Amith Chandrashaker	Seats (Total: 6)
	Contact instructor or department for details.	

THET669 **Independent Study**

(Perm req)

Contact department for information to register for this course.

THET669B **Independent Study; Studio Art for Scenic Designers**

Students mus pa a $25 lab fee.

5501	Misha Kachman	Seats (Total: 10)	
	W 9:00am - 11:50am	PAC 2733	

THET669F **Independent Study; Figure Drawing**

5501	Susan O'Neill	Seats (Total: 16)	
	F 9:00am - 11:50am	PAC 3736	

THET669I **Independent Study; Sound Design**

5501	Samuel Crawford	Seats (Total: 3)	
	TuTh 1:30pm - 2:45pm	PAC 2727	

THET669R **Independent Study; Advanced Rendering**

Students must pay a $25 lab fee.

5501	Helen Huang	Seats (Total: 8)	
	Th 1:30pm - 4:20pm	PAC 2755	

THET669T **Independent Study; Theatre Graphics II: Computer Assisted Design**

(Perm req)

Students must pay a $25 course fee.

5501	Andrew Cissna	Seats (Total: 5)	
	MW 10:00am - 11:50am	PAC 2727	Lab

THET700 **Introduction to Graduate Research Methods**

(Perm req)

Restriction: Must be a graduate student in a Theatre program. Also offered as: THET600. Credit only granted for: THET600 or THET700. Additional information: Only students in the doctoral program may register for THET700.

Basic skills in theatre research.

0101	Carla Della Gatta	Seats (Total: 12)	
	MW 2:30pm - 3:45pm	PAC 1815	

THET711 **Critical Theory**

Prerequisite: THET700. Recommended: THET712.

A doctoral methods course. Major developments in modern and postmodern critical theory with particular emphasis on application to the fields of Theatre and Performance Studies.

0101	James Harding	Seats (Total: 10)
	Th 4:00pm - 6:30pm	PAC 1815

THET788 **Design for Live Performance Tutorial**

(Perm req)

Collaboration with a faculty member on joint creative and artistic projects. A tutorial that assists students in developing a professional design portfolio, monitors practical production efforts and addresses practical production skills that may not be offered in traditional design studios.

Contact department for information to register for this course.

THET789 **Theatre Design Process and Production**

(Perm req)

The class encompasses various areas of pedagogical interactions between MFAD students and their mentors which include, but are not limited to: design advising and supervision for mainstage design assignments and professional projects outside the School, production process supervision (shop walkthroughs, fittings, technical rehearsals, note sessions), mandatory design critiques, assisting faculty members on outside professional projects etc.

Contact department for information to register for this course.

THET799 **MFA Theatre Design Thesis**

(Perm req)

Projects are assigned and approved as Thesis by the student's primary faculty mentor. Projects fall into three categories: 1) realized mainstage designs at the Clarice Smith Performing Arts Center; 2) realized designs at professional venues outside the University; 3) theoretical designs.

Contact department for information to register for this course.

THET888 **Doctoral Practicum in Theatre**

(Perm req)

Critical analysis of a phase of a professional field of theatre. Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

THET889 **Doctoral Tutorial in Theatre**

(Perm req)

Individual research in theatre.

Contact department for information to register for this course.

THET898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

THET899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

TLPL Teaching and Learning, Policy and Leadership Fall 2023

TLPL101 **Inquiry Approach to Teaching STEM (Step 1)**

Additional information: Students must allow for a three-hour window between 7:45 AM and 3:15 PM in their schedule for field experiences in a local school 3-4 times during the semester. A background check is required and will be facilitated by the Terrapin Teacher program coordinator.

Explore STEM teaching and learning and classroom complexity, and develop teaching skills through discussion-based, collaborative class sessions, and experiences in local schools. To explore/understand the fundamentals of inquiry teaching, students will observe, plan and teach student-centered lessons.

0101	Milen Matthews M 3:00pm - 4:20pm	Seats (Total: 24) PHY 1120
0201	Sara Kirschner M 3:00pm - 4:20pm	Seats (Total: 24) PHY 1108
0301	Steven Karig Th 12:30pm - 1:50pm	Seats (Total: 24) PHY 1120
0501	Jennifer Mesiner Th 3:30pm - 4:50pm	Seats (Total: 24) PHY 1120

TLPL102 **Inquiry Teaching of STEM in Middle School**

Prerequisite: Must have completed TLPL101. Additional information: Attendance at each class session will be vital to student success in the course. To complete the observations and lessons, students must allow a three hour block of time during the local middle school operational hours from 7:45 am to 3:15 pm. A background check is required.

Second course in the Terrapin Teachers teacher preparation sequence. Students gain field experience and continue exploring teaching as a career by conducting teacher observations, and planning and implementing lessons in local, high-need middle school classrooms. Students work closely with UM master teachers to build upon the inquiry-based teaching practices developed in TLPL 101. Students work with mathematics and science curricula while attending to state and district standards, in order to develop and enact lessons that are responsive to students' reasoning in math and science.

0201	Anita Sanyal Th 3:00pm - 4:50pm	Seats (Total: 24) PLS 1129

TLPL206 **Forbidden Books: Censorship of Children's and Young Adult Literature**

Credit only granted for: TLPL288W or TLPL206. Formerly: TLPL288W.

What is the relationship between censorship and intellectual freedom? This course examines the history of censorship from Plato to Fake News with a focus on contemporary censorship analyzed through historical, political, ethical, moral, philosophical, and socio-cultural perspectives. We consider the evolving definition of censorship, forms of censorship, the rationalizations and arguments for censorship, and the consequences and unintended results of censorship.

0101	Wayne Slater TuTh 12:30pm - 1:45pm	Seats (Total: 60) TYD 0102

TLPL250 **Historical and Philosophical Perspectives on Education**

Credit only granted for: EDPS210 or TLPL250. Formerly: EDPS210.

An examination of illustrative historical and philosophical examples of the interplay of ideas and events in the shaping of educational aims and practices from ancient cultures to modern technological societies.

0101	Lisa Lopez-Escobar TuTh 12:30pm - 1:45pm	Seats (Total: 30) TYD 1114
0201	Staci Kottkamp MW 10:00am - 11:15am	Seats (Total: 30) TWS 0221
0301	Kavitha Kasargod-Staub Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 30) TWS 0205 TWS 0221
0401	Stephanie Chou MW 1:00pm - 2:15pm	Seats (Total: 30) TWS 0236

TLPL251 **Community, Learners, and Classroom Climate**

Additional information: This course has a field component in a local elementary school.

Focuses on classroom community building as an ethic of caring for students and examines the connection between classroom climate and learning. Topics include students' funds of knowledge, social-emotional competency, and the practices that maintain a safe and inclusive classroom climate. Wellness strategies to support teacher resilience are also addressed.

Two-hour seminar each week on campus plus a four-hour lab each week which includes three hours in a local public school classroom and commute time to and from campus. Most schools are within a 20-minute commute with more travel time needed if public transportation is required. Allow for travel time between on-campus coursework and the off-campus public school experience. All schools require a Prince Georges County Public School security process that includes fingerprinting and a background check at an additional cost, prior to the start of the experience.

0101	Karen Rehder Tu 4:00pm - 5:50pm Class time/details on ELMs Tu 8:00am - 12:00pm	Seats (Total: 12) TYD 2109 ONLINE Location: TBA	Lab
0102	Karen Rehder Tu 4:00pm - 5:50pm Class time/details on ELMs W 8:00am - 12:00pm	Seats (Total: 12) TYD 2109 ONLINE Location: TBA	Lab
0103	Karen Rehder Tu 4:00pm - 5:50pm Class time/details on ELMs Th 8:00am - 12:00pm	Seats (Total: 12) TYD 2109 ONLINE Location: TBA	Lab

TLPL288D **Special Problems in Education; Developmental Heuristics**

(Perm req)

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership. Available only to freshmen and sophomore students who have definite plans for individual study of approved problems relative to their preparation for teaching.

0101	Sharon Vanwright Contact instructor or department for details.	Seats (Total: 115)

TLPL298 **Special Problems in Education**

(Perm req)

Exploration of current problems in teaching, learning, policy and leadership. Available only to students who have definite plans for study of approved problems.

Contact department for information to register for this course.

TLPL305B **Curriculum and Instruction Cluster**

(Perm req)

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 30)

0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 28)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 30)

TLPL305M **Curriculum and Instruction Cluster**

(Perm req)

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 20)

TLPL312 **Curriculum and Instruction in Elementary Education: Mathematics**

(Perm req)

Prerequisite: TLPL361. Corequisite: EDCI362, EDCI342, TLPL321, and TLPL362. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75; Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI352 or TLPL312. Formerly: EDCI352.

Materials and procedures to help children sense arithmetical meanings and relationships. Development of an understanding of the number system and arithmetical processes. Includes laboratory/field experiences.

0101	William Viviani M 12:00pm - 2:45pm Contact instructor or department for details.	Seats (Total: 0) EDU 2121
0201	Sara Kirschner, William Viviani Th 8:30am - 11:15am Contact instructor or department for details.	Seats (Total: 0) EDU 2121
0301	Angela Stoltz Tu 12:30pm - 3:15pm Contact instructor or department for details.	Seats (Total: 0) EDU 2121

TLPL321 **Curriculum and Instruction in Elementary Education: Science**

(Perm req)

Prerequisite: TLPL361. Corequisite: TLPL312, EDCI362, EDCI342, and TLPL362. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75; Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI372 or TLPL321. Formerly: EDCI372.

Objectives, methods, materials and activities for teaching science in the elementary school; emphasis on teaching strategies which help children learn the processes and concepts of science. Includes laboratory/field experiences.

0101	Daniel Levin M 8:30am - 11:15am	Seats (Total: 0) EDU 2212
0201	Amy Green Th 12:00pm - 2:45pm Contact instructor or department for details.	Seats (Total: 0) EDU 2212
0301	Amy Green Tu 9:00am - 11:45am	Seats (Total: 0) EDU 2212

TLPL340 **Introduction to Children's Literature and Critical Literacy**

Restriction: Must be in Elementary Education program; or must be a Pre-Education Major. Credit only granted for: EDCI443 or TLPL340. Formerly: EDCI443.

Analysis of literary materials for children and youth. Timeless and ageless books, and outstanding examples of contemporary publishing. Evaluation of the contributions of individual authors, illustrators and children's book awards.

0101	Shannon Kane MW 1:00pm - 2:15pm	Seats (Total: 22) EDU 1315
0201	Ayanna Baccus MW 2:30pm - 3:45pm	Seats (Total: 25) EDU 1315

TLPL341 **Assessing Language and Literacy Development in Elementary Classrooms**

(Perm req)

Corequisite: TLPL479, EDHD411, and EDSP401. Restriction: Must be in the Elementary Education program; and permission of EDUC-Teaching and Learning, Policy and Leadership. Credit only granted for: TLPL341 or TLPL488R. Formerly: TLPL488R.

An exploration of the social and cognitive processes involved in reading and writing, the developmental nature of those processes, the foundational concepts associated with effective literacy assessment, a variety of formative and summative literacy assessments, and the nature of individual differences in reading and writing.

0101	Shannon Kane M 9:00am - 11:45am	Seats (Total: 24) EDU 1315

0201	Shannon Kane Tu 9:00am - 11:45am	Seats (Total: 25) TLF 0103
0301	Olivia Saracho Th 9:00am - 11:45am	Seats (Total: 28) EDU 1107

TLPL343 **Promoting Skilled and Motivated Readers in Diverse Elementary Classrooms (Part 2)**

(Perm req)

Corequisite: TLPL312, TLPL321, TLPL446, and TLPL489. Restriction: Must be in the Elementary Education program; and permission of EDUC-Teaching and Learning, Policy and Leadership. Credit only granted for: TLPL343 or TLPL488F. Formerly: TLPL488F.

Application of the materials, curriculum, teaching and learning practices and assessment methods associated with classroom reading programs designed to promote skilled and motivated readers in diverse elementary classrooms. Teacher candidates will learn to assess and scaffold students' self-regulated literacy learning in line with students' individual needs and Maryland College and Career Ready Standards.

0101	Hongye Zeng Tu 12:00pm - 2:45pm	Seats (Total: 0) EDU 3315
0201	Rose Cherussery W 8:30am - 11:15am	Seats (Total: 0) EDU 1315
0301	Ayanna Baccus M 8:30am - 11:15am	Seats (Total: 0) EDU 1107

TLPL360 **Foundations of Education**

Credit only granted for: EDPS301 or TLPL360. Formerly: EDPS301.

Social context of education and conflicts over philosophies, values, an goals that are reflected in educational institutions in our pluralistic society. Helps teachers become reflective, critical thinkers about the social and philosophical issues they face and the choices they make.

0201	Colin McCarthy MW 11:00am - 12:15pm	Seats (Total: 30) EDU 1121
0301	Colin McCarthy TuTh 2:00pm - 3:15pm	Seats (Total: 30) ASY 1213

TLPL401 **Student-Centered Curriculum and Instruction**

(Perm req)

Prerequisite: Permission of instructor; and TLPL102; and must have completed or be concurrently enrolled in TLPL488M. Credit only granted for: TLPL488P or TLPL401. Formerly: TLPL488P. Additional information: Field experience for this course will require students to be available for a 2-4 hour block of time at various points throughout the semester to complete observations and teach lessons between 8:00 a.m. and 3:30 p.m. A background check is required and will be facilitated through the Terrapin Teacher program coordinator.

A focus on using student-centered teaching and learning approaches in high school STEM classrooms. Students will develop and implement a multi-day series of lessons, building upon the foundations of inquiry-based practices developed in prior courses. Students will also consider the implications of cultural awareness on teaching practices broadly, as well as in the specific contexts of their fieldwork.

0101	Aaron Kyei-Asare TuTh 2:00pm - 3:20pm	Seats (Total: 24) PHY 1108
0201	Dana Grosser-Clarkson TuTh 2:00pm - 3:20pm	Seats (Total: 24) PHY 1120

TLPL403 **Teaching and Learning High School Mathematics**

Prerequisite: Must have 2 semesters of calculus; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Corequisite: EDCI355. Restriction: Must be in Secondary Educ: Mathematics program; and minimum cumulative GPA of 2.75; Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI455 or TLPL403. Formerly: EDCI455.

Methods of teaching and assessing the high school mathematics curriculum; aligning tasks and activities to curriculum standards; lesson planning; and selection and use of technology. The course also focuses on managing large group dynamics in the high school mathematics classroom.

0101	Dana Grosser-Clarkson M 5:00pm - 8:00pm	Seats (Total: 24) PHY 1120

TLPL406 **Teaching and Learning Mathematics in the Elementary School, Part 1**

Jointly offered with: TLPL607. Credit only granted for: TLPL607 or TLPL406.

Focuses on teaching and learning whole numbers. Special emphasis will be placed on developing equitable teaching practices that enable culturally and linguistically diverse students to develop knowledge and skills that promote mathematical proficiency. Mathematical concepts: Content knowledge: some aspects of early numeracy, whole numbers and the four arithmetic operations, some aspects of algebraic thinking.

PXK1	Carolina Napp-Avelli Tu 5:00pm - 8:00pm Class time/details on ELMs *Must be in Curriculum & Instruction: CITE (M.Ed).*	Seats (Total: 25) Location: TBA ONLINE

TLPL413 **Teaching and Learning Middle School Mathematics**

(Perm req)

Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI457 or TLPL413. Formerly: EDCI457.

Methods of teaching and assessing the middle school mathematics curriculum. Understanding the conceptual difficulties students have in moving from whole numbers to rational numbers, additive thinking to multiplicative thinking, and arithmetic to algebra. Lesson planning and selection of technology and other materials are applied in the context of supervised tutoring of students having difficulty in middle school mathematics. Lab and field experience required. Supervised tutoring takes place on site at a local middle school therefore TLPL413 students will be expected to travel to a local middle school for 8-10 of the class meetings.

0101	Margaret Walton, Janet Walkoe TuTh 3:10pm - 5:00pm	Seats (Total: 25) SQH 1111

TLPL414 **Knowing and Learning in Mathematics and Science**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in TLPL102. Credit only granted for: TLPL488M or TLPL414. Formerly: TLPL488M.

Special and intensive treatment of current topics and issues in mathematics and science teaching and learning, policy and leadership. The overall goal of the course is to orient future teachers to the discourses and theories that shape what we know about how students learn math and science.

0101	Anita Sanyal TuTh 9:30am - 10:45am	Seats (Total: 24) PHY 1120

TLPL420 **Knowledge, Reasoning, and Learning in Science**

(Perm req)

Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: TLPL420 or EDCI411. Formerly: EDCI411.

For prospective science teachers. Investigations of the nature of knowledge, reasoning, and learning in middle and secondary science. Readings from cognitive science and science education research; studies of student thinking in interview and classroom observations; analyses of curricula. Includes laboratory and field experiences.

0101	Daniel Levin TuTh 3:30pm - 4:45pm	Seats (Total: 0) ASY 3217

TLPL423 **Interdisciplinary Teaching in the Middle Grades I**

(Perm req)

Prerequisite: TLPL413 and TLPL420; or permission of instructor. Corequisite: EDCI360 and TLPL475. Restriction: Minimum cumulative GPA of 2.75; and must be in the Middle School Teacher Education Program, major code 0804P. Credit only granted for: EDCI413 or TLPL423. Formerly: EDCI413.

For prospective middle school teachers. Studying and planning interdisciplinary instructional practices in middle school. Utilizes context and experiences from students' field placements. Use of technology and incorporation of technology into instruction.

0101	Angela Stoltz	Seats (Total: 0)
	M 10:00am - 11:50am	KEY 0102

TLPL425 **Learning and Teaching in Science**

Prerequisite: TLPL420; or permission of instructor. Restriction: Must be in Secondary Educ: Science program. Credit only granted for: EDCI470 or TLPL425. Formerly: EDCI470.

Studies of student learning and instructional practices in science teaching.

0101	Jennifer Mesiner	Seats (Total: 24)
	M 2:30pm - 5:30pm	PHY 1120

TLPL433 **Foundations of Art Education**

Restriction: Minimum cumulative GPA of 2.75. Credit only granted for: EDCI403 or TLPL433. Formerly: EDCI403.

Introduction to the field of Art Education and the role of the visual arts in grades PreK-12 for today's diverse school populations. The fundamental, historical and philosophic components of art education with an emphasis on arts disciplines and curriculum. Includes a school-based practicum. For those considering art education as a major.

0101	Margaret Walker	Seats (Total: 19)
	Th 9:00am - 12:00pm	EDU 1315

TLPL436 **Studio Processes and Materials: 2D**

(Perm req)

Prerequisite: ARTT210. Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department; and junior standing or higher; and must not be in any of the following programs (Early Childhood Education; Elementary Education; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Mathematics; Secondary Educ: Foreign Languages; Secondary Educ: Social Studies; Physical Education; Music Education; Special Education). Credit only granted for: EDCI406 or TLPL436. Formerly: EDCI406.

A discussion/studio format used to develop skills, materials, resources and education strategies for using technology and two-dimensional art in K-12 programs.

0101	Margaret Walker	Seats (Total: 10)
	Th 12:30pm - 4:05pm	EDU 1315

TLPL440 **Issues in the Education of English Language Learners**

Credit only granted for: EDCI432 or TLPL440. Formerly: EDCI432.

Investigates historical, theoretical, and public policy issues and current practice in the field of education as it relates to multilingual learners (also known as English Language Learners, English Learners) in K-12 and other settings.

0101	Laura Mahalingappa	Seats (Total: 22)
	TuTh 9:30am - 10:45am	EDU 3233

TLPL442 **Foundations of Literacy and Biliteracy Development**

Credit only granted for: EDCI435 or TLPL442. Formerly: EDCI435.

An overview of the research on literacy and biliteracy development for English learners. Specifically, the course explores the theoretical models and processes of teaching reading and writing, current literacy/biliteracy issues, assessment, and strategies for developing literacy and biliteracy skills for English learners.

0101	Hongye Zeng	Seats (Total: 22)
	MW 11:00am - 12:15pm	EDU 3236

TLPL443 **Understanding Cross-Cultural Communication for Teaching English Language Learners**

Credit only granted for: EDCI436 or TLPL443. Formerly: EDCI436.

Participants will research and critically reflect upon aspects of culture as a basis to understand students and to develop principles to guide culturally inclusive teaching decisions. Participants will better understand the role of culture and language in schooling in order to create classrooms where culturally and linguistically diverse students (also known as English Language Learners, English Learners) can succeed.

0101	Katharine Glanbock	Seats (Total: 15)
	W 1:15pm - 4:00pm	EDU 3233

TLPL445 **Methods I: K-12 World Language Methods and Technology**

(Perm req)

Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI410, TLPL445, EDCI688K, or TLPL695. Formerly: EDCI410.

The first of two sequential courses required for achieving competence i teaching a foreign language. The sequel to this course is EDCI433 (Methods II) entitled: Advanced K-12 Foreign Language Methods and Technology. EDCI410 requires on-going examination of theories relevant to language acquisition. Students will also investigate the instructional methods that reflect those theories. Lab and field experiences required.

0101	Antonio Perez Belda MW 12:30pm - 1:45pm	Seats (Total: 15) TLF 0110

TLPL446 **Language Variation and Multilingualism in Elementary Classrooms**

(Perm req)

Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75. Or permission of EDUC-Teaching and Learning, Policy and Leadership department.

Issues in language variation and multilingualism in elementary classrooms, schools and communities with a focus on classroom practice, assessment, and policy.

0101	Margaret Marcus Tu 8:30am - 11:15am	Seats (Total: 0) EDU 1107
0201	Kellie Rolstad W 12:00pm - 2:45pm	Seats (Total: 0) ASY 3211
0301	Sarah Moore M 12:00pm - 2:45pm	Seats (Total: 0) ASY 3211

TLPL447 **Art Education Methods II**

(Perm req)

Prerequisite: TLPL435; or students who have taken courses with comparable content may contact the department. Restriction: Minimum cumulative GPA of 2.75; and must be in Secondary Educ: Art program. Credit only granted for: EDCI423, EDCI603, TLPL447 or TLPL633. Formerly: EDCI423.

Methods II builds upon the pedagogical foundation of Methods I and provides future art teachers with the means for developing pre K-12 art lessons and unit plans for a balanced qualitative art program for today's diverse and inclusive schools and classrooms.

0101	Katherine Coogan Tu 9:00am - 12:00pm	Seats (Total: 10) EDU 1315

TLPL450 **Advanced K-12 World Language Methods and Technology**

(Perm req)

Prerequisite: TLPL445. Corequisite: EDCI438. Restriction: Must be in Secondary Educ: Foreign Languages program; and minimum cumulative GPA of 2.75. Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI433, EDCI688A, TLPL450 or TLPL696. Formerly: EDCI433.

Teaches advanced best practices for effective foreign language instruction. Topics include: using authentic assessment and materials, applying national standards, teaching writing and culture, motivating students, providing strategy instruction, infusing technology, preparing for K-12 employment, and creating a professional portfolio.

EDCI438 must be taken concurrently with EDCI433.

0101	Antonio Perez Belda	Seats (Total: 5)	
	M 5:00pm - 7:45pm	EDU 2102	

TLPL451 **Teaching and Learning in Secondary Education: English**

(Perm req)

Credit only granted for: EDCI416 or TLPL451. Formerly: EDCI416.

An introduction for prospective middle and secondary English teachers into the basic issues, concepts, orientations, and processes that shape the teaching of English for diverse students in schools. Candidates explore their own perspectives in relation to local and national trends and develop basic teaching understanding and skills through on-campus seminars, teaching laboratory experiences, and guided field experiences. Students should reserve one full day or two half days per week for field experience.

0101	Peggy Wilson	Seats (Total: 25)	
	M 8:30am - 10:15am	EDU 3315	
	W 8:30am - 10:15am	EDU 2121	Lab

TLPL456 **Teaching Writing**

(Perm req)

Corequisite: EDCI447. Restriction: Must be in Secondary Educ: English Language Arts program; and minimum cumulative GPA of 2.75. Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI467 or TLPL456. Formerly: EDCI467.

Examines current theory, research, best practice, curricula and materials for teaching written communication in grades K-12. Focuses on analytical, argumentative, informative/explanatory, literary analysis, narrative, descriptive, and research writing. Emphasizes instructional planning, assessment, writer problem-solving strategies, information search, development, organization and style appropriate to task, purpose and audience for both non-digital and digital text. English Language Learner and special needs pupil issues considered.

0101	Wayne Slater Th 5:00pm - 7:45pm	Seats (Total: 30) ASY 3215

TLPL457 **Literature for Adolescents**

(Perm req)

Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI466 or TLPL457. Formerly: EDCI466.

Reading and analysis of fiction and nonfiction; methods for critically assessing quality and appeal; current theory and methods of instruction; research on response to literature; curriculum design and selection of books.

0101	Rasha Alkhateeb MW 11:00am - 12:15pm	Seats (Total: 30) TWS 0207

TLPL460 **Materials and Instruction for Creating Skilled and Motivated Readers, Part I**

(Perm req)

Restriction: Must be in Elementary Education program; and junior standing or higher. Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI461 or TLPL460. Formerly: EDCI461.

Selecting, evaluating, and using a variety of materials and instructional strategies to create skilled and motivated readers in the elementary grades; Topics include emergent literacy, vocabulary development, reading comprehension and oral reading fluency in diverse classroom settings.

PXK2	Theresa Robinson **Meets August 30, 2023 - October 19, 2023** WTh 5:00pm - 8:00pm Class time/details on ELMs *Must be in Curriculum & Instruction: CITE (M.Ed).*	Seats (Total: 25) Location: TBA ONLINE

TLPL461 **Materials and Instruction for Creating Skilled and Motivated Readers, Part II**

Prerequisite: TLPL361 and TLPL460. Corequisite: TLPL312, EDCI342, TLPL321, and TLPL362. Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department; and must be in Elementary Education program. Credit only granted for: EDCI462 or TLPL461. Formerly: EDCI462.

Selecting, evaluating, and using a variety of materials to create skilled and motivated readers in the elementary grades, particularly in diverse classroom settings; Topics include word analysis, spelling, writing, reading comprehension strategies, directed reading lessons, and explicit instruction.

PXK2	Heidi Oliver **Meets October 19, 2023 - December 7, 2023** WTh 5:00pm - 8:00pm Class time/details on ELMs *Must be in Curriculum & Instruction: CITE (M.Ed).*	Seats (Total: 25) Location: TBA ONLINE

TLPL462 **Reading in the Secondary School**

(Perm req)

Restriction: Minimum cumulative GPA of 2.75; and must be in one of the following programs (Middle School Education; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Mathematics; Secondary Educ: Foreign Languages; Secondary Educ: Social Studies; Secondary Educ: Art) ; and permission of department required for post-baccalaureate students. Credit only granted for: EDCI463 or TLPL462. Formerly: EDCI463.

Provides secondary school teachers with understanding the need for and approaches to teaching students to read and learn from content area texts.

0101	Olivia Saracho W 3:30pm - 6:00pm	Seats (Total: 22) SQH 2120

TLPL470 **Knowledge, Reasoning, and Learning in Secondary Social Studies**

(Perm req)

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department; and minimum cumulative GPA of 2.75. Credit only granted for: EDCI426 or TLPL470. Formerly: EDCI426.

An exploration of the nature of knowledge and reasoning in social studies disciplines as well as how students learn social studies. Assessment and investigation of students' conceptions and misconceptions as well as their disciplinary thinking. Implications for teaching and initial lesson design are explored through on-campus seminars as well as guided field experiences. Students should reserve a regular half-day per week for the field experience in local schools. This course is required for admission to the secondary social studies double major.

0101	Lisa Eaker Th 4:15pm - 7:00pm	Seats (Total: 30) TWS 0201

TLPL471 **Curriculum, Teaching, and Assessment in Secondary Social Studies**

(Perm req)

Prerequisite: TLPL470. Corequisite: EDCI428. Restriction: Must be in Secondary Educ: Social Studies program; and minimum cumulative GPA of 2.75. Or permission of EDUC-Center for Learning & Educational Technology. Credit only granted for: EDCI427 or TLPL471. Formerly: EDCI427.

An exploration of curriculum development, teaching, and assessment in secondary history/social studies. Focus on identifying students' conceptions of social studies topics and designing lessons that advance students' disciplinary thinking and understanding.

0101	Elizabeth Reynolds M 4:30pm - 7:30pm	Seats (Total: 15) SQH 2113

TLPL475 **Equitable Classrooms**

(Perm req)

Prerequisite: TLPL252, TLPL413, and TLPL420. Corequisite: EDCI360 and TLPL423. Restriction: Minimum cumulative GPA of 2.75; and must be in Middle School Education program. Credit only granted for: EDCI424 or TLPL475. Formerly: EDCI424.

An exploration and application of major theoretical frameworks surrounding equity and critical pedagogy. Creating habits of mind that help teachers see all students as capable of achieving at high levels. Draws on the concurrent field experience.

0101	Carla Blackwell Tu 10:00am - 12:00pm	Seats (Total: 0) TWS 0201

TLPL477 **Teaching Academically, Culturally, and Linguistically Diverse Students in Middle School and Secondary Education**

(Perm req)

Restriction: Must be in the teacher education program; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: TLPL488B or TLPL477. Formerly: TLPL488B.

Instruction on methods of teaching academically, culturally, and linguistically diverse students in middle school and secondary classrooms.

0101	Stuti Gupta TuTh 9:00am - 9:50am	Seats (Total: 0) EDU 3236
0201	Kia McDaniel W 5:30pm - 7:15pm	Seats (Total: 20) KNI 1206

TLPL478A **Professional Seminar in Education; Art Education**

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Katherine Coogan Tu 12:00pm - 1:00pm	Seats (Total: 20) LEF 1171

TLPL478G **Professional Seminar in Education; Elementary Education**

(Perm req)

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Deborah Lewin F 12:45pm - 3:45pm Contact instructor or department for details.	Seats (Total: 0) TWS 0310	
0201	Brooke Dalesio F 12:45pm - 3:45pm Contact instructor or department for details.	Seats (Total: 0) TWS 0310	
0301	Tracy Dunheimer F 12:45pm - 3:45pm Contact instructor or department for details.	Seats (Total: 0) TWS 0310	

TLPL479A **Field Experiences in Education; Art Education**

(Perm req)

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Katherine Coogan Contact instructor or department for details.	Seats (Total: 10)	

TLPL479B **Field Experiences in Education; Secondary Social Studies Education**

(Perm req)

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Alison Jovanovic M 1:00pm - 2:00pm Contact instructor or department for details.	Seats (Total: 35) TYD 0111	Lab

TLPL479C **Field Experiences in Education; English Education**

(Perm req)

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Secondary English/speech/drama education majors only. Students must reserve one full day per week for observation.

0101	Peggy Wilson	Seats (Total: 25)
	Contact instructor or department for details.	

TLPL479D **Field Experiences in Education; Secondary Mathematics Education**

(Perm req)

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Anisha Campbell	Seats (Total: 20)
	Contact instructor or department for details.	

TLPL479E **Field Experiences in Education; Middle School Education**

(Perm req)

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Angela Stoltz	Seats (Total: 0)
	Contact instructor or department for details.	

TLPL479F **Field Experiences in Education; Science Education**

(Perm req)

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Tranae Johnson	Seats (Total: 15)
	Contact instructor or department for details.	

TLPL479G **Field Experiences in Education; Tutoring**

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Purchase of LiveText ($139) is required for this course. A fee for fingerprinting may be required.

0102	Jaclyn Klueger Stief	Seats (Total: 12)
	Tu 7:30am - 10:30am Class time/details on ELMs	Location: TBA ONLINE

0103	Jaclyn Klueger Stief W 7:30am - 10:30am Class time/details on ELMs	Seats (Total: 12) Location: TBA ONLINE
0104	Jaclyn Klueger Stief Th 7:30am - 10:30am Class time/details on ELMs	Seats (Total: 12) Location: TBA ONLINE
0106	Jaclyn Klueger Stief Tu 2:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 15) Location: TBA ONLINE
0107	Jaclyn Klueger Stief W 2:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 15) Location: TBA ONLINE
0108	Jaclyn Klueger Stief Th 2:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 15) Location: TBA ONLINE

TLPL479J **Field Experiences in Education; Second Language Education**

(Perm req)

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Antonio Perez Belda Contact instructor or department for details.	Seats (Total: 10)

TLPL479L **Field Experiences in Education; Agriculture Education**

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Melissa Welsh Contact instructor or department for details.	Seats (Total: 10)

TLPL481 **Embracing Diversity in the Classroom Community**

Restriction: Admission to teacher education program; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: TLPL481 or EDCI475. Formerly: EDCI475.

An exploration of the richness and complexity of student diversity that teacher candidates will encounter in K-12 classrooms. Students will engage in critical reflection around diversity and equity issues.

0101	Crystal Charity Tu 3:30pm - 6:15pm	Seats (Total: 25) JMZ 0122

TLPL488J **Special Topics in Education; STEM Participatory Action Research Project**

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Daniel Levin Class time/details on ELMs	Seats (Total: 4) ONLINE

TLPL489 **Internship in Education**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL489D **Internship in Education; Mathematics**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL489G **Internship in Education; TEACHING RESIDENCY**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Deborah Lewin Contact instructor or department for details. *Field Experience is Wednesday and Thursday and all Fridays when TLPL478G is not scheduled. Time will follow the assigned school schedule.*	Seats (Total: 0)
0201	Brooke Dalesio Contact instructor or department for details. *Field Experience is Monday and Tuesday and all Fridays when TLPL478G is not scheduled. Time will follow the assigned school schedule.*	Seats (Total: 0)

0301	Tracy Dunheimer	Seats (Total: 0)
	Contact instructor or department for details.	
	Field Experience is Wednesday and Thursday and all Fridays when TLPL478G is not scheduled. Time will follow the assigned school schedule.	

TLPL489Y **Internship in Education; Teaching Residency**

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Brooke Dalesio	Seats (Total: 5)
	Contact instructor or department for details.	

TLPL489Z **Internship in Education; Elementary Education Residency**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL498 **Special Problems in Education**

(Perm req)

Exploration of current problems in teaching, learning, policy and leadership. Available only to students who have definite plans for study of approved problems.

Contact department for information to register for this course.

TLPL606 **Teaching and Learning Mathematics in Secondary Schools**

Prerequisite: Enrollment in a University of Maryland program leading to teacher certification; and bachelor's degree in mathematics or related field; and 2 semesters of calculus. Credit only granted for: EDCI651 or TLPL606. Formerly: EDCI651.

Objectives, selection and organization of subject matter, appropriate methods, lesson plans, textbooks, technology and other instructional materials; assessment of student learning and other topics pertinent to secondary mathematics education. Internship of other placement in a secondary mathematics classroom is required.

Prerequisite: Permission of department.

Contact department for information to register for this course.

TLPL607 **Teaching and Learning Mathematics in the Elementary School**

Prerequisite: MATH212, MATH213, or MATH214; or students who have taken courses with comparable content may contact the department. Credit only granted for: EDCI652 or TLPL607. Formerly: EDCI652.

Strategies and methodologies for the teaching of elementary school mathematics based on current research and theories about how children learn mathematics. Attention is given to professional recommendations and teaching practices that foster communication, reasoning, and reflection in the mathematics classroom. Internship or other placement in an elementary school is required.

Contact department for information to register for this course.

TLPL610 **Trends in Mathematics Education**

Credit only granted for: EDCI650 or TLPL610. Formerly: EDCI650.

Recent developments in educational thinking and practice which have affected the curriculum in mathematics.

PVL1	Andrew Brantlinger	Seats (Total: 25)
	Tu 5:00pm - 7:45pm	BLD3 3203
	Must be in Curriculum & Instruction: Middle School Math (M.Ed). Golden Golden ID students are not eligible for this section.	

TLPL625 **Teaching Science in Elementary Schools**

Credit only granted for: EDCI671 or TLPL625. Formerly: EDCI671.

Identification of problems in teaching science. Methods for improving the effectiveness of science education.

Contact department for information to register for this course.

TLPL626 **Learning to Teach and Learn Science**

Prerequisite: TLPL420; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Restriction: Must be in the Maryland Master's Certification program; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI675 or TLPL626. Formerly: EDCI675.

Developing practices of instruction in science teaching in the context of understanding student science learning.

Contact department for information to register for this course.

TLPL632 **Understanding and Teaching Aesthetics**

Credit only granted for: EDCI602 or TLPL632. Formerly: EDCI602.

Critical investigation of art, and curriculum implications.

0101	Margaret Walker	Seats (Total: 17)
	Tu 4:15pm - 7:00pm	EDU 1315

TLPL633 **Integrated Art Methods**

Prerequisite: EDCI680; or TLPL435. Restriction: Must be in a major within the EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI423, EDCI603, TLPL447 or TLPL633. Formerly: EDCI603.

Builds upon the pedagogical foundation of an initial art education methods course and provides future art teachers with the means for developing PreK-12 art lesson/unit plans for a balanced qualitative art program for today's diverse and inclusive schools/classrooms. Integratin g art with other subject areas.

Contact department for information to register for this course.

TLPL637 **Teaching for Equity in Bilingual/Dual Language Immersion Programs**

Focuses on how educators apply and reflect on teaching, learning and school practices aimed to achieve educational equity in dual language programs, including bilingual, two way, and one-way immersion K-12. This course will include instruction, discussion, and materials in a LOTE (Language other than English) to model bilingual instruction.

0101	Melinda Martin-Beltran Tu 5:00pm - 7:45pm Class time/details on ELMs	Seats (Total: 20) KNI 1206 ONLINE
PXH1	Melinda Martin-Beltran Th 5:00pm - 7:45pm *Must be in School System Leadership: TESOL (Ed.D)*	Seats (Total: 25) Location: TBA
PXQ1	Melinda Martin-Beltran Tu 5:00pm - 7:45pm Class time/details on ELMs *Must be in the Dual Language Education Graduate Certificate. Registration for students outside of these program is By Permission Only. Golden ID students are not eligible for this section.*	Seats (Total: 7) KNI 1206 ONLINE

TLPL640 **Assessing, Diagnosing, and Teaching Writing**

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI673 or TLPL640. Formerly: EDCI673.

Examines current theory, research, best practice, curricula and materials for teaching written communication in middle and secondary schools in order to survey, review and select formal and informal assessments and diagnostic strategies useful for writing teachers. Focuses on validity and reliability issues. Includes instructional planning and development of instructional materials for implementing appropriate individual, small-group and large-group instruction. English Language Learner (TESOL and SIOP) and special needs (inclusion) pupil issues considered.

Contact department for information to register for this course.

TLPL644 **Foundations of Reading**

Prerequisite: EDCI362; or TLPL462; or students who have taken courses with comparable content may contact the department. Credit only granted for: EDCI660 or TLPL644. Formerly: EDCI660.

Broad and comprehensive overview of reading and literacy and factors that may influence effective reading practices such as instruction, classroom environment and individual differences. Focus on different knowledge domains and traditions of inquiry related to reading and reading instruction.

0101	Jennifer Turner Tu 5:00pm - 7:45pm Class time/details on ELMs	Seats (Total: 15) EDU 2212 ONLINE

TLPL647 **Diagnostic Reading Assessment and Instruction**

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI662 or TLPL647. Formerly: EDCI662.

Survey course in diagnostic reading assessment and instruction for graduate students not majoring in reading.

PXK1	Rebecca Silverman W 5:00pm - 8:00pm Class time/details on ELMs *Must be in Curriculum & Instruction: CITE (M.Ed).*	Seats (Total: 25) Location: TBA ONLINE

TLPL656 **Teaching Culturally and Linguistically Diverse Exceptional Learners**

Credit only granted for: EDCI632 or TLPL656. Formerly: EDCI632.

Explores cross-cultural and linguistic diversity as they relate to identification procedures for and education of English learners with exceptional needs beyond the second language acquisition process such as learning disabilities and gifted & talented.

0101	Drew Fagan Th 5:00pm - 8:00pm	Seats (Total: 15) ARC 1103

TLPL657 **Teaching for Cross Cultural Communication**

Credit only granted for: EDCI633 or TLPL657. Formerly: EDCI633.

Participants will research and critically reflect upon aspects of culture as a basis to understand students and to develop principles to guide culturally inclusive teaching decisions. Participants will better understand the role of culture and language in schooling in order to create classrooms where culturally and linguistically diverse students (also known as English Language Learners, English Learners) can succeed.

0101	Katharine Glanbock W 1:15pm - 4:00pm	Seats (Total: 10) EDU 3233

TLPL661 **Multiliteracies: Theory and Practice**

Prerequisite: TLPL665. Credit only granted for: EDCI638, EDCI688J, or TLPL661. Formerly: EDCI638 and EDCI688J.

Explores the theoretical constructs and practical manifestations of multiliteracies in communities and schools by presenting an overview of the research on the constructs of New Literacy Studies, Critical Literacy, Digital Literacy, and Funds of Knowledge, as well as the practical implications of teaching reading and writing to culturally and linguistically diverse learners in content areas (i.e., language arts, math, science, social studies, etc.) in classrooms.

0101	Shenika Hankerson	Seats (Total: 15)
	M 5:00pm - 7:45pm	JMZ 0125
	Class time/details on ELMs	ONLINE

TLPL664 **Foundations of Second Language Education: Legal, Social and Historical Trends and Issues**

Credit only granted for: EDCI630 or TLPL664. Formerly: EDCI630.

Knowledge of history, research, current practice and public policy issues in the field of second languague education from kindergarten to post-secondary settings. Required for TESOL certification program.

0101	Jeff MacSwan	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

TLPL665 **Methods of Teaching ESOL**

Credit only granted for: EDCI634 or TLPL665. Formerly: EDCI634.

Draws on current research to present methods of teaching English to speakers of other languages and challenges participants to analyze and apply successful classroom practices that address the needs of culturally and linguistically diverse learners (also known as English Language Learners, English Learners).

0101	Jessica Crawford	Seats (Total: 20)
	M 5:00pm - 7:45pm	EDU 2101

TLPL666 **English Grammar for Teachers of English to Speakers of Other Languages**

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI635 or TLPL666. Formerly: EDCI635.

English grammar and methods of teaching grammar for graduate, prospective and current teachers of English to speakers of other languages. Analysis of the major grammatical structures of American English. Discussion of the role of teaching grammar, and effective classroom methods and techniques for the English as a second/foreign language classroom.

0101	Kellie Rolstad Tu 5:00pm - 7:45pm	Seats (Total: 25) ASY 3215

TLPL674 **Studying Student Learning in Diverse Settings**

Credit only granted for: EDCI611 or TLPL674. Formerly: EDCI611.

This course deepens teacher understanding of student development and th cultural context for teaching through readings and focused field studies. Participants will also begin developing skills needed for investigations using methods of interpretive inquiry.

Contact department for information to register for this course.

TLPL675 **Embracing Diversity in Classroom Communities**

Credit only granted for: EDCI697 or TLPL675. Formerly: EDCI697.

The course aims to help students understand race, class, gender, and sexuality as systems of privilege, exclusion, marginalization, and the centrality of embracing diversity in the classroom communities to promote the success of all students.

PUJ1	Madiha Moin, Amy Green W 5:00pm - 8:00pm *Must be in Curriculum & Instruction: STEM (M.Ed).*	Seats (Total: 25) ONLINE

TLPL678 **Professional Seminar in Education**

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

PXK2	Theresa Robinson **Meets August 29, 2023 - December 6, 2023** Tu 5:00pm - 7:00pm Class time/details on ELMs *Must be in Curriculum & Instruction: CITE (M.Ed).*	Seats (Total: 25) Location: TBA ONLINE

TLPL683 **Sociology of Education**

Credit only granted for: TLPL683 or EDPS613. Formerly: EDPS613.

This seminar examines major theoretical frameworks and perspectives of the sociology of education with an emphasis on k-12 education. The course also takes a pragmatic approach by applying theoretical knowledge to understand U.S. schooling and contemporary educational themes and debates where activists, researchers, and political actors aim to alter schools, students, or families.

0101	Claudia Galindo Tu 4:15pm - 7:00pm	Seats (Total: 20) ARC 1125

TLPL685 **Teaching Social Studies in Elementary Schools**

Credit only granted for: EDCI622 or TLPL685. Formerly: EDCI622.

Examination of current literature and research in the social sciences as they relate to social studies curriculum and instruction.

Contact department for information to register for this course.

TLPL686 **Curriculum, Teaching and Assessment in Social Studies**

Prerequisite: TLPL470; or EDCI680. Credit only granted for: EDCI627 or TLPL686. Formerly: EDCI627.

Focuses on five key issues on social studies education: defining learning goals, building units with aligned goals, assessments, and instructional activities, designing inquiry-based lessons, assessing student learning, and modifying instruction based on assessment data.

Contact department for information to register for this course.

TLPL687 **Politics of Education**

Credit only granted for: EDPS614 or TLPL687. Formerly: EDPL614.

Educational institutions as political entities. Focuses on conceptual perspectives for examining political dynamics in governmental and organizational contexts. Provides opportunities to carry out original case studies of policy making processes at various levels of the education policy system.

For TLPL majors only. Cross-listed with TLPL687. Credit only granted for TLPL687 or PLCY689K. Educational institutions as political entities. Focuses on conceptual perspectives for examining political dynamics in governmental and organizational contexts. Provides opportunities to carry out original case studies of policy making processes at various levels of the education policy system.

0101	Meghan Comstock	Seats (Total: 20)
	Tu 1:00pm - 3:45pm	EDU 2212

TLPL689 **Internship in Education**

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Student lab fee may apply. Contact program for details.

0101	Antonio Perez Belda	Seats (Total: 10)
	Contact instructor or department for details.	

TLPL691 **Research Methods**

Credit only granted for: EDCI685 or TLPL691. Formerly: EDCI685.

The interpretation and conduct of research relevant to curriculum, teaching and learning.

PUI1	John Chi, Sarah Moore Class time/details on ELMs *Must be in Curriculum & Instruction: TESOL (M.Ed).*	Seats (Total: 25) ONLINE

TLPL695 **Methods I: K-12 World Language Methods and Technology**

Credit only granted for: EDCI410, TLPL445, EDCI688K, or TLPL695. Formerly: EDCI688K. Additional information: Lab and field experiences required.

TLPL 695 requires on-going examination of theories relevant to language acquisition. Students will also investigate the instructional methods that reflect those theories.

0101	Antonio Perez Belda MW 12:30pm - 1:45pm	Seats (Total: 5) TLF 0110

TLPL696 **Advanced K-12 World Language Methods and Technology**

(Perm req)

Prerequisite: TLPL695; and TLPL695. Corequisite: Must be concurrently enrolled in TLPL479J. Credit only granted for: EDCI433, EDCI688A, TLPL450 or TLPL696. Formerly: EDCI688A.

Teaches advanced best practices for effective World Language instruction. Topics include: lesson planning, using authentic assessment and materials, applying national and state standards infusing culture, interdisciplinary content and technology. Classroom management procedures and strategies to create a welcoming and engaging classroom environment. Motivating students and differentiated instruction.

0101	Antonio Perez Belda M 5:00pm - 7:45pm	Seats (Total: 5) EDU 2102

TLPL698 **Conducting Research on Teaching**

(Perm req)

Analysis and improvement of educational practice. Research methods used in the study of classroom teaching. Design and conduct of an action research project. Open only to students admitted to approved teacher education programs.

PUJ1	Beatriz Quintos Alonso W 5:00pm - 8:00pm *Must be in Curriculum & Instruction: STEM (M.Ed).*	Seats (Total: 25) ONLINE
PXK1	Theresa Robinson Th 5:00pm - 8:00pm Class time/details on ELMs *Must be in Curriculum & Instruction: CITE (M.Ed).*	Seats (Total: 25) Location: TBA ONLINE

TLPL699 **Master's Seminar**

Directed study for master's degree students writing seminar papers.

Contact department for information to register for this course.

TLPL708A **Special Topics in Technology, Learning & Leadership; TLL Graduate Research Seminar**

Read, plan, conduct, and report on research projects and research topics related to Technology, Learning & Leadership. Projects may be faculty/student projects, or group or individual student projects (may or may not be related to a dissertation). Emphasis on framing researchable questions and designing/analyzing research studies. Faculty and peer feedback and interaction are crucial expectations.

0101	David Weintrop	Seats (Total: 10)
	Tu 1:00pm - 1:50pm	LEF 1220
	Class time/details on ELMs	ONLINE

TLPL708C **Special Topics in Technology, Learning & Leadership; Research-Educational Responses to Digital Mis- and Disinformation**

Read, plan, conduct, and report on research projects and research topics related to Technology, Learning & Leadership. Projects may be faculty/student projects, or group or individual student projects (may or may not be related to a dissertation). Emphasis on framing researchable questions and designing/analyzing research studies. Faculty and peer feedback and interaction are crucial expectations.

0101	Sarah McGrew	Seats (Total: 15)
	Tu 4:15pm - 7:00pm	EDU 2121

TLPL708D **Special Topics in Technology, Learning & Leadership; Research-Practice Partnerships in Education**

Read, plan, conduct, and report on research projects and research topics related to Technology, Learning & Leadership. Projects may be faculty/student projects, or group or individual student projects (may or may not be related to a dissertation). Emphasis on framing researchable questions and designing/analyzing research studies. Faculty and peer feedback and interaction are crucial expectations.

0101	David Weintrop	Seats (Total: 20)
	W 1:00pm - 4:00pm	EDU 2212

TLPL710 **Theory and Research on Mathematical and Scientific Thinking and Learning**

Prerequisite: Admitted to Doctoral Program in Mathematics Education or Science Education; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI751 or TLPL710. Formerly: EDCI751.

Study of mathematical and scientific thinking by students at various levels of schooling considered from the perspective of those classic and contemporary theories of learning that are particularly relevant to the study of mathematics and science. Exploration of what it means to understand mathematics and science.

0101	Janet Walkoe	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 2121

TLPL728 **Research Seminar in Mathematics and Science Education**

Read, plan, conduct, and report on research projects and research topics in mathematics and science education. Projects may be faculty/student projects, or group or individual student projects (may or may not be related to a dissertation). Emphasis on framing researchable questions and designing/analyzing research studies. Faculty and peer feedback and interaction are crucial expectations.

0101	Andrew Elby	Seats (Total: 13)
	F 10:00am - 1:30pm Class time/details on ELMs	EDU 2121 ONLINE

TLPL762 **Phenomenological Inquiry I**

Credit only granted for: EDPS735 or TLPL762. Formerly: EDPS735.

Philosophic grounding for phenomenological inquiry at a beginning level Guided writing practice in doing phenomenological inquiry is provided on a selected lived experience phenomenon.

0101	Margaret Peterson	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 2212

TLPL764 **Data Management and Coding in Stata**

Recommended: Some prior experience with data management and statistical programming software (namely Stata) and with applied statistics. Credit only granted for: TLPL788D or TLPL764. Formerly: TLPL788D.

School districts and states are required to collect large swaths of data on students, teachers, and schools. These large administrative datasets have become the backbone of education policy research, and so students interested in engaging in this space increasingly need the skills to work with "big data." This course will help students learn a coding language from the program Stata in order to clean and analyze large datasets. Topics covered include: data cleaning, recoding and checking; merging data from multiple sources; reshaping data; documenting processes; writing programs and macros to reduce errors; and presenting descriptive data through tables and graphs.

Class will be held in the COE Computer Lab in Benjamin Building.

0101	Francisco Lagos Marin	Seats (Total: 20)
	M 12:00pm - 12:50pm	Location: TBA

TLPL765 **Quantitative Applicaltions for Education Policy Analysis**

Prerequisite: EDMS645; or students who have taken courses with comparable content may contact the department. Recommended: EDMS646; or EDMS651. Or EDMS646; and EDMS651. Credit only granted for: EDPS703 or TLPL765. Formerly: EDPS703.

Students use quantitative applications and secondary datasets to investigate social problems and education policies. Emphasis on the use of quasi-experimental designs and regression techniques to frame education issues, analyze, and recommend policies.

0101	Jing Liu M 4:15pm - 7:00pm	Seats (Total: 20) ASY 3215

TLPL771 **Pedagogy of Teacher Education**

Restriction: Permission of department. Credit only granted for: EDCI780 or TLPL771. Formerly: EDCI780.

Illuminates and challenges the somewhat implicit pedagogies of teacher education that have existed over time, and aims to develop a more overt knowledge of where the field is, and should be, as we engage in the opportunities and challenges of teaching and teacher education in our current era. To do so, we examine teacher education as racialized, linguicized, and gendered, and as situated in larger political and power-laden contexts.

0101	Keisha Allen W 9:00am - 11:45am	Seats (Total: 20) EDU 3233

TLPL774 **Urban Education**

Credit only granted for: EDCI776 or TLPL774. Formerly: EDCI776.

This seminar provides students with a broad overview of urban education as a field of inquiry by examining the social context of urban schools, how transformative pedagogy is practiced and conceptualized as well as school reform.

0101	Tara Brown W 4:15pm - 7:00pm	Seats (Total: 20) EDU 2102

TLPL788I **Special Topics in Education; Language Policy and Education**

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Sarah Moore Th 12:30pm - 3:15pm	Seats (Total: 20) PLS 1168

TLPL788M **Special Topics in Education; Research Development Workshop**

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Jing Liu Tu 12:00pm - 12:50pm	Seats (Total: 15) EDUC 2212

TLPL788Q **Special Topics in Education; Seminar in Teacher Education and Professional Development**

(Perm req)

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Astrid Sierra Mejia F 12:00pm - 2:00pm	Seats (Total: 20) ONLINE

TLPL788R **Special Topics in Education; Critical Perspectives in Ethnographic Research Methods**

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Rossina Liu M 4:15pm - 7:00pm	Seats (Total: 20) EDU 3233

TLPL788Y **Special Topics in Education; Researching Mathematics as Mathematics Educators**

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Daniel Chazan Tu 9:00am - 12:00pm	Seats (Total: 20) ONLINE

TLPL789 **Internship in Education**

Approved professional experiences with appropriate supervision. Open only to students admitted to approved master's and doctoral specializations.

Contact department for information to register for this course.

TLPL790 **Seminar in Mixed Methods Research in Education**

Prerequisite: EDMS646; and (EDCI791 or EDHI700); and permission of EDUC-Teaching and Learning, Policy and Leadership department. Recommended: EDCI792. Credit only granted for: EDCI775 or TLPL790. Formerly: EDCI775.

Examination of epistemological and methodological issues involved in conducting mixed methods studies in education. Students design and conduct analyses using existing datasets that include qualitative and quantitative data. They formulate appropriate research questions, consider alternative mixed methods designs, and address methodological complexities associated with working with qualitative and quantitative data in a single study.

0101	Andrew Brantlinger Th 4:15pm - 7:00pm	Seats (Total: 20) EDU 2212

TLPL791 **Qualitative Research I: Design and Fieldwork**

(Perm req)

Prerequisite: EDCI790. Credit only granted for: EDCI791 or TLPL791. Formerly: EDCI791.

Examines the theoretical and epistemological moorings of different types of qualitative research. Students apply selected field research methods to problems of professional practice in schools and communities while considering central issues and dilemmas that arise while engaging in fieldwork.

0101	Jennifer Turner	Seats (Total: 20)
	W 4:35pm - 7:20pm	EDU 1315

TLPL794 **Foundations of Educational Research I**

Restriction: Must be in Teaching and Learning, Policy and Leadership (Doctoral) program. Credit only granted for: EDPS788P or TLPL794. Formerly: EDPS788P.

An introduction to the "contested terrain" of education research. It examines major conceptual, methodological and political issues embedded in efforts to carry out education research and focuses on the development of the analytic dispositions and communication skills required to carry out research that meets the variously defined quality, utility and significance standards of scholarship in the field.

0101	Kristyn Lue, Olivia Williams	Seats (Total: 24)
	Th 4:15pm - 7:00pm	EDU 1121

TLPL798 **Special Problems in Education**

(Perm req)

Exploration of current problems in teaching, learning, policy and leadership. Available only to master's or doctoral candidates under the direction of their advisors.

Contact department for information to register for this course.

TLPL799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

TLPL888 **Apprenticeship in Education**

(Perm req)

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

TLPL889 **Internship in Education**

(Perm req)

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

TLPL898 **Pre-Candidacy Research**
Contact department for information to register for this course.

TLPL899 **Doctoral Dissertation Research**

(Perm req)

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

TLTC Teaching and Learning Transformation Center Fall 2023

TLTC310 **Leadership in Collaborative Learning Groups**

(Perm req)

Restriction: Restricted to students selected to participate in the Guided Study Sessions through the Teaching and Learning Transformation Center. Credit only granted for: HESI318N or TLTC310. Formerly: HESI318N.

Experiential learning opportunity that applies principles of leadership, peer mentoring, and learning theory to the planning and facilitation of peer-led collaborative learning sessions. Incorporates research, reasoning, evidence, and feedback to develop a reflective practice.

0101	Danielle Pafe W 5:00pm - 6:15pm Contact instructor or department for details.	Seats (Total: 20) ESJ B0322
0102	Danielle Pafe Th 3:30pm - 4:45pm Contact instructor or department for details.	Seats (Total: 20) ESJ 1309

TLTC333 **Fundamentals of Academic Peer Mentoring**

How should scientific research influence the way we study and advance the academic performance of others? Learn about the scholarship of teaching and learning and develop the applied skills to support active learning as an academic peer mentor. Whether or not you ultimately pursue a career as an educator, the more effectively you can coach and support the performance of other people, and the more successful you will be. Guided online and face-to-face participation will culminate in a portfolio of your teaching activities and professional development.

Students must be working as an AMP in order to register for TLTC333. If you have any questions about this requirement, please email tltc-amp@umd.edu.

Click here for more course information.

0101	Mona Thompson M 10:00am - 10:50am Contact instructor or department for details. *This section will meet in person on the following dates: Sept. 11, Oct. 9, and Nov. 13.*	Seats (Total: 50) ONLINE
0102	Mona Thompson M 11:00am - 11:50am Contact instructor or department for details. *This section will meet in person on the following dates: Sept. 11, Oct. 9, and Nov. 13.*	Seats (Total: 50) ONLINE
0105	Mona Thompson Tu 12:30pm - 1:20pm Contact instructor or department for details. *This section will meet in person on the following dates: Sept. 12, Oct. 10, and Nov. 14.*	Seats (Total: 50) ONLINE

TLTC399 **Independent Study in Academic Peer Mentoring**

(Perm req)

Earn academic credit for the time spent supporting a course in TLTC's Academic Peer Mentoring Program (AMP).

Prerequisite: Must have completed or be concurrently enrolled in TLTC333. Restriction: Permission of TLTC required - enrollment restriction. Repeatable to 6 credits. Earn academic credit for the time spent supporting a course in TLTC's Academic Peer Mentoring Program (AMP).

Contact department for information to register for this course.

TLTC499A **Independent Study in Teaching and Learning**

(Perm req)

Earn academic credit for the time spent supporting TLTC's educational development programs and/or engaging in the scholarship of teaching and learning.

Restriction: Permission of TLTC required. Contact the department for information to register for this course.

0101	Mona Thompson Contact instructor or department for details.	Seats (Total: 10)
0102	Danielle Pafe Contact instructor or department for details.	Seats (Total: 10)

UMEI Maryland English Institute Fall 2023

UMEI003 **English as a Foreign Language: Intermediate II**

(Perm req)

Restriction: Permission of EDUC-Dean-Maryland English Institute department.

Intensive course for the non-native speaker of English who has mastered the essential structures of English grammar. Emphasis on improving communicative skills for a wide range of linguistic situations, on rapid expansion of vocabulary, and on improving reading comprehension and basic writing skills. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Instructor: TBA MTuWThF 9:00am - 11:50am MTuWThF 1:00pm - 2:50pm	Seats (Total: 20) Location: TBA Location: TBA

UMEI004 **English as a Foreign Language: Intermediate III**

(Perm req)

Restriction: Permission of EDUC-Dean-Maryland English Institute department.

Intensive course for the non-native speaker of English who has a good command of the basic features of spoken and written English. Emphasis on refining speaking and listening skills, on improving reading speed and comprehension of academic texts, and on developing writing skills for academic courses. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Heather Mehrtens, Louise Godley MTuWThF 9:00am - 11:50am MTuWThF 1:00pm - 2:50pm	Seats (Total: 20) LEF 1221 SQH 1123
0301	Heather Mehrtens, Louise Godley MTuWThF 9:00am - 11:50am MTuWThF 1:00pm - 2:50pm	Seats (Total: 20) LEF 1221 SQH 1123

UMEI005 **Advanced English as a Foreign Language**

Semi-intensive course for the nearly proficient non-native speaker of English needing additional language instruction prior to undertaking full-time academic study. Speaking and listening skills; improvement of reading speed and comprehension; and development of writing skills. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Marilena Draganescu MTuThF 9:00am - 10:50am	Seats (Total: 15) SQH 1125
0201	Marilena Draganescu MTuThF 1:00pm - 2:50pm	Seats (Total: 15) SQH 1125

0301	Charles Duquette MTuThF 1:00pm - 2:50pm *This section is restricted to Graduate Students.*	Seats (Total: 15) SQH 2113
0501	Charles Duquette MTuThF 9:00am - 10:50am *This section is restricted to Graduate Students.*	Seats (Total: 15) SQH 2113

UMEI006 **English Pronunciation**

(Perm req)

Restriction: Must have graduate standing.

Individualized class for the non-native speaker of English. Diagnosis of individual pronunciation problems. Practice in the correct pronunciation of English sounds and improvement of ability to speak English with proper stress and intonation patterns. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Louise Godley MW 1:00pm - 2:30pm	Seats (Total: 16) LEF 1171
0201	Raymond Smith TuTh 9:00am - 10:30am	Seats (Total: 16) EDU 2101

UMEI007 **Advanced Writing for International Students**

Restriction: Must have graduate standing.

A writing skills course for the non-native speaker of English with a good command of spoken English. This course does not carry credit towards any degree at the University and does not count in the retention plan.

Restriction: Must have graduate standing.

0101	Annelies Galletta TuTh 1:00pm - 2:50pm	Seats (Total: 15) EDU 2102
0201	Annelies Galletta MW 9:00am - 10:50am	Seats (Total: 15) EDU 3236

UNIV University Courses Fall 2023

UNIV099 **Internship Seminar**

(Perm req)

Complements students' supervised work experiences. Open to all majors; all class levels. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

0101	Jenny Sak, Erica Ely	Seats (Total: 90)
	Contact instructor or department for details.	

UNIV100 **The Student in the University**

Credit only granted for: EDCP108O or UNIV100. Formerly: EDCP108O.

Introduces students to University life. In a small classroom setting, students will explore how to successfully bridge the gap between high school and college. Study skills, career decision-making, and student development processes will be explored.

0101	Ulysses Crawford	Seats (Total: 20)
	Meets September 6, 2023 - November 18, 2023	
	Th 11:00am - 12:20pm	PHY 2211
	Restricted to first semester students enrolled in UTerp program.	
0102	Annelies Galletta	Seats (Total: 20)
	Meets September 6, 2023 - November 24, 2023	
	W 1:00pm - 2:50pm	ASY 3215
	Open to first-semester freshmen. This course invites international students and students with substantial experience living in the United States to work collaboratively, engaging in cross-cultural exchange while learning about UMD.	
0201	Kenneth Kokason	Seats (Total: 27)
	W 11:00am - 12:20pm	SKN 1115
	Restricted to First Semester BSOS Majors.	
0202	Danielle Worsham	Seats (Total: 27)
	W 1:00pm - 2:20pm	SKN 1115
	Restricted to First Semester BSOS Majors. Online Classes will be held on 9/21; 10/19; and 11/19.	
0204	Emily Sessa	Seats (Total: 27)
	Th 1:00pm - 2:20pm	WDS 0104
	Restricted to First Semester BSOS Majors.	

0205	Bailey Kier W 3:00pm - 4:20pm *Restricted to First Semester BSOS Majors.*	Seats (Total: 27) ONLINE
0207	Rosalyn Anderson-Howell Tu 3:00pm - 4:20pm *Restricted to First Semester BSOS Majors.*	Seats (Total: 27) ASY 3211
0208	Kimberly Bethke M 3:30pm - 4:50pm *Restricted to First Semester BSOS Majors.*	Seats (Total: 27) JMZ 1224
0210	Serena Mlawsky, TC Lloyd Tu 3:00pm - 4:20pm *Restricted to First Semester BSOS Majors.*	Seats (Total: 22) EDU 2102
0212	Steven Meadows M 11:00am - 12:20pm *Restricted to First Semester BSOS Majors.*	Seats (Total: 27) KEY 0125
0305	Christopher Lester W 6:00pm - 7:50pm *Restricted to OMSE - College Success Scholars.*	Seats (Total: 20) TWS 1107
0306	Christopher Lester W 6:00pm - 7:50pm *Restricted to OMSE - College Success Scholars.*	Seats (Total: 20) TWS 1107
0505	Kristen Cabrera M 11:00am - 12:50pm	Seats (Total: 20) EDU 0306
0604	Shannon Bate **Meets August 28, 2023 - November 13, 2023** M 12:00pm - 1:30pm *Restricted to engineering incoming freshmen.*	Seats (Total: 20) EGR 2116

0801	Raymond Ranker **Meets September 5, 2023 - November 17, 2023** M 2:00pm - 3:50pm *Restricted to First Semester Letters and Sciences students.*	Seats (Total: 20) SPH 0307
0802	Amanda Dennis **Meets September 5, 2023 - November 17, 2023** Tu 2:00pm - 3:50pm *Restricted to First Semester Letters and Sciences students.*	Seats (Total: 20) JMZ 1215
0804	Gregory Shaffer **Meets September 5, 2023 - November 17, 2023** Th 3:30pm - 5:30pm *Restricted to First Semester Letters and Sciences students who are interested in Law School.*	Seats (Total: 20) JMZ 1124
0806	Caroline Marr **Meets September 5, 2023 - November 17, 2023** W 3:30pm - 5:20pm *Restricted to First Semester Letters and Sciences students.*	Seats (Total: 20) JMZ 1215
0807	Shannon Bate **Meets September 5, 2023 - November 17, 2023** Tu 11:00am - 12:50pm *For first semester Letters and Sciences students who are interested in STEM (science, technology, mathematics, engineering) majors or careers. Part of the STEM Exploration Series.*	Seats (Total: 20) SQH 2113
0808	Greyson Cox **Meets September 5, 2023 - November 17, 2023** Tu 2:00pm - 3:50pm *For first semester Letters and Sciences students who are interested in STEM (science, technology, mathematics, engineering) majors or careers. Part of the STEM Exploration Series.*	Seats (Total: 20) JMZ 1120

0812	Sarah Wilson	Seats (Total: 20)
	Meets September 5, 2023 - November 17, 2023	
	Tu 12:30pm - 2:20pm	JMZ 0120
	For first semester Letters and Sciences students who are interested in STEM (science, technology, mathematics, engineering) majors or careers. Part of the STEM Exploration Series.	
0820	James McClellan	Seats (Total: 20)
	Meets September 5, 2023 - November 17, 2023	
	Th 12:30pm - 2:20pm	JMZ 0120
	For first semester Letters and Sciences students who are interested in STEM (science, technology, mathematics, engineering) majors or careers. Part of the STEM Exploration Series.	
0826	Steven Young	Seats (Total: 20)
	Meets September 5, 2023 - November 17, 2023	
	M 3:30pm - 5:20pm	JMZ 1120
	Restricted to First Semester Letters and Sciences students.	
0841	Thomas Steen	Seats (Total: 20)
	Meets September 5, 2023 - November 17, 2023	
	Tu 3:30pm - 5:20pm	JMZ 1124
	Restricted to First Semester Letters and Sciences students.	
0851	Alana Ebert-Zavos	Seats (Total: 20)
	Meets September 5, 2023 - November 17, 2023	
	M 1:00pm - 2:50pm	CHE 2140
	For first semester Letters and Sciences students interested in business. Part of the Business Exploration Series.	

0852	Alexander Willie **Meets September 5, 2023 - November 17, 2023** W 3:00pm - 4:50pm *For first semester Letters and Sciences students who are interested in STEM (science, technology, mathematics, engrineering) majors or careers. Part of the STEM Exploration Series.*	Seats (Total: 20) JMZ 1117
0854	Tara Feikes **Meets September 5, 2023 - November 17, 2023** M 2:00pm - 3:50pm *For first semester Letters and Sciences students who are interested in STEM (Science, Technology, Mathematics, Engineering) majors or careers. Part of the STEM Exploration Series.*	Seats (Total: 20) SPH 0302
0857	Steve Leonard **Meets September 5, 2023 - November 17, 2023** W 1:00pm - 2:50pm *Restricted to First Semester Letters and Sciences students.*	Seats (Total: 20) LEF 1201
0901	Ariel Brathwaite Tu 9:00am - 10:50am *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 22) JMZ 1215
0902	Thomas Gleason Tu 9:00am - 10:50am *Restricted to Physics majors 19020 and 1902E.*	Seats (Total: 20) SYM 0215
0903	Eden Hurley Tu 2:00pm - 3:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code: 12031).*	Seats (Total: 20) HBK 0105
0904	Gene Ferrick Th 10:00am - 11:50am *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 22) SYM 0215

0905	Chan Lin Tu 11:00am - 12:50pm *Restricted to BSCI-CHEM-BCHM, NEUR majors or UMB-Nursing students (majo code: 12031).*	Seats (Total: 20) ARC 1125
0906	Marsha Guenzler-Stevens Tu 1:00pm - 2:50pm *Restricted to Biofire.*	Seats (Total: 22) SYM 0215
0907	Earl Johnson Tu 1:00pm - 2:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 20) WDS 0104
0908	Victoria Fitzgerald, Imani Burwell-Finch M 2:00pm - 3:50pm *Restricted to Neuroscience majors - 04250.*	Seats (Total: 20) BPS 1234
0909	Matthew Wootten W 10:00am - 11:50am *Restricted to BSCI-BCHM-CHEM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 22) SYM 0215
0910	Rachel Blanset M 2:00pm - 3:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 22) ESJ 2309
0912	Clay Smith W 12:00pm - 1:50pm *Restricted to any CMNS majors.*	Seats (Total: 21) KEY 0100
0915	Shiloh Ortiz M 1:00pm - 2:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 20) ATL 2316
0917	Erin Thomson Tu 11:00am - 12:50pm *Restricted to non CMNS majors who are in the Life Sciences-College Park Scholars Program.*	Seats (Total: 20) SQH 1111

0918	Victoria Fitzgerald Th 2:00pm - 3:50pm *Restricted to Neuroscience majors (04250).*	Seats (Total: 20) JMZ 0118
0919	Evelyn Covington-Moore Th 3:00pm - 4:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 22) JMZ 0120
0920	Clay Smith F 1:00pm - 2:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 20) KEY 0117
0925	Michelle Darkwa W 1:00pm - 2:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 20) KEY 0125
0926	Jennifer Guy M 2:00pm - 3:50pm *Restricted to BioFIRE students.*	Seats (Total: 22) WDS 0104
0927	Na'eem Allen-Stills W 12:00pm - 1:50pm *Restricted for BioFire students.*	Seats (Total: 22) HBK 0123
0928	Melissa Hayes-Gehrke, Thomas Gleason F 2:00pm - 2:50pm *Restricted to Students in the Chesapeake Scholars Program.*	Seats (Total: 20) HBK 0108
1101	Maiya Smith Tu 10:00am - 11:15am *Restricted to ARCH majors only; cannot be dropped without permission from college.*	Seats (Total: 18) LEF 1220
1103	Jordan Fields Tu 12:00pm - 1:15pm *Restricted to ARCH majors only; cannot be dropped without permission from college.*	Seats (Total: 18) LEF 1222
1201	Tracy Kennedy M 1:00pm - 2:15pm *Restricted to SPHL majors only; cannot be dropped without permission from college.*	Seats (Total: 18) SPH 0227

1202	Lawrence Hoffman M 3:00pm - 4:15pm *Restricted to SPHL majors only; cannot be dropped without permission from college.*	Seats (Total: 18) SPH 0227
1203	Felicia Low Tu 9:30am - 10:45am *Restricted to Public Health Science major (12140) only. Cannot be dropped without permission from the college.*	Seats (Total: 18) SPH 0225
1205	Lindsey Winter Tu 11:00am - 12:15pm *Restricted to Kinesiology majors (08351) only. Cannot be dropped withou permission from the college.*	Seats (Total: 18) SPH 0227
1206	Bryan Pointer W 1:00pm - 2:15pm *Restricted to SPHL majors only; cannot be dropped without permission from college.*	Seats (Total: 18) SPH 0227
1207	Renee Stokes Th 9:30am - 10:45am *Restricted to SPHL majors only; cannot be dropped without permission from college.*	Seats (Total: 18) SPH 0227
1208	Kendyl Oliver Th 2:00pm - 3:15pm *Restricted to SPHL majors only; cannot be dropped without permission from college.*	Seats (Total: 18) SPH 0225
1209	Catherine Donohoe M 11:00am - 12:15pm *Restricted to SPHL majors only; cannot be dropped without permission from college.*	Seats (Total: 18) SPH 0227
1210	Erin Caporellie W 3:00pm - 4:15pm *Restricted to SPHL majors only; cannot be dropped without permission from college.*	Seats (Total: 18) SPH 0227
1211	Caitlin Minch W 11:00am - 12:15pm *Restricted to SPHL majors only; cannot be dropped without permission from college.*	Seats (Total: 17) SPH 0225

1212	April Khaing Th 11:00am - 12:15pm	Seats (Total: 18) SPH 0227
	Restricted to SPHL majors only; cannot be dropped without permission from college.	
1213	April Khaing Tu 7:00pm - 8:15pm	Seats (Total: 16) ONLINE
	Restricted to SPHL majors only; cannot be dropped without permission from college.	
1503	Sarah Balcom M 2:00pm - 3:50pm	Seats (Total: 20) TLF 1103
	Restricted to College of Agriculture and Natural Resources, First Year or Transfer Students.	
FC01	Sangida Akter M 7:30pm - 8:45pm	Seats (Total: 18) JMZ 0205
	Restricted to students in Freshmen Connection.	
FC02	Gloria Chin Quee M 4:30pm - 5:45pm	Seats (Total: 18) TLF 1103
	Restricted to students in Freshmen Connection.	
FC03	Joel Solorzano F 10:00am - 11:15am	Seats (Total: 18) PLS 1115
	Restricted to students in Freshmen Connection.	
FC04	Neil Dhingra F 1:00pm - 2:15pm	Seats (Total: 18) KEY 0125
	Restricted to students in Freshmen Connection.	
FC05	Olga Rozman W 7:30pm - 8:45pm	Seats (Total: 18) JMZ 0205
	Restricted to students in Freshmen Connection.	
FC06	Amrina Rangar W 6:00pm - 7:15pm	Seats (Total: 18) JMZ 0122
	Restricted to students in Freshmen Connection.	

FC07	Marissa Sariol-Clough Th 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 1124
FC08	Jeany Cadet M 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 1120
FC09	Mariah Bauer F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) KNI 1105
FC10	Kenneth Kokason F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) EDU 1315
FC11	Diana Bridgett F 1:00pm - 2:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) ATL 2316
FC12	Jeany Cadet M 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) SKN 1112
FC13	Namrata Ram-Andriessens M 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0122
FC14	Denise McHugh Th 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0205
FC15	Susan Johnston F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) KEY 0102
FC16	Foster McDaniel F 10:00am - 11:15am *Restricted to students in Freshmen Connection.*	Seats (Total: 18) SYM 0215

FC17	Austin McDonald Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0120
FC18	Alana Ebert-Zavos Tu 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0120
FC19	Lauren Neimeyer F 1:00pm - 2:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) KNI 1206
FC20	Genna Godley Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) MTH 0405
FC21	Eric Johnson Th 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) PLS 1117
FC22	Ginny Hutcheson Th 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0205
FC23	Gregory Shaffer M 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0103
FC24	Jahaira Dixon Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) MTH B0423
FC25	Joel Solorzano F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) EDU 3315
FC26	Lori Kader Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) HBK 0125

FC27	Kamrie Risku Th 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0120
FC28	Sharon Vanwright F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) SKN 1115
FC29	Heather Gray Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) SKN 0104
FC30	Genna Godley Tu 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) MTH 0405
FC31	Dustin Smith F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) SQH 2120
FC32	Erik Hanson Th 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 3205
FC33	Jessica Senasack Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) ARC 1101
FC34	Stephanie Olson Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) SQH 1123
FC35	Kayla Hoffman F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) EDU 3233
FC36	Alejandra Galarce Diaz M 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 1124

FC37	Thomas Steen M 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0120
FC38	Andrew Muir Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) TLF 0110
FC39	Ali Kuczka F 10:00am - 11:15am *Restricted to students in Freshmen Connection.*	Seats (Total: 17) EDU 3233
FC40	Heather Gray W 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0120
FC41	Tatyana Yevgrafova Tu 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 1124
FC42	Sahiba Bansal Tu 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0205
FC43	Madeline Georgevich F 1:00pm - 2:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) SQH 1111
FC44	Myles Alexander Tu 3:00pm - 4:15pm *Restricted to students in Freshman Connection.*	Seats (Total: 18) TYD 2111
FC45	Jessica Chew W 6:00pm - 7:15pm *Restricted to students in Freshmen Connection. Recommended for students majoring in the College of Education.*	Seats (Total: 5) KEY 0121

FC47	Jonathan Molnar Tu 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0205
FC48	Nicki Kern Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) EDU 1315
FC49	Cierra Carter Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) SPH 1301
FC50	Alina Maki W 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) BPS 1232
FC51	Lynn Truong Tu 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0118
FC52	Vanessa Georgiadis F 10:00am - 11:15am *Restricted to students in Freshmen Connection*	Seats (Total: 18) SKN 1115
FC53	Dan Hairfield M 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) ASY 3221
FC54	Beatrice Hammett F 1:00pm - 2:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) SKN 1115
FC55	Tatyana Yevgrafova F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) EDU 1121
FC56	Tracy Kennedy W 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) KEY 0125

FC57	Phylicia Nance W 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 1124
FC58	Frances Woods-Suku Th 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 0120
FC59	Jennifer Bradley M 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) SYM 0209
FC60	Jonathan Molnar Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) TWS 1107
FC61	Breana Echols F 10:00am - 11:15am *Restricted to students in Freshmen Connection.*	Seats (Total: 18) KEY 0102
FC62	Miriam Levitin F 1:00pm - 2:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) WDS 0104

UNIV100V **The Student in the University**

Credit only granted for: EDCP108O or UNIV100. Formerly: EDCP108O.

Introduces students to University life. In a small classroom setting, students will explore how to successfully bridge the gap between high school and college. Study skills, career decision-making, and student development processes will be explored.

0101	Tasha Vanterpool M 3:30pm - 5:30pm *This section is reserved for VETERANS ONLY. DD214 required for verification.*	Seats (Total: 25) Location: TBA

UNIV106 **The Transfer Student in the University**

Restriction: Must be a first-semester transfer student. Credit only granted for: UNIV106 or EDCP108G.

This course is designed to assist students in making a successful transition to the University of Maryland (UMD) and to serve as an extended orientation to campus living and learning.

0101	Melissa Hyre Tu 11:00am - 12:15pm *Restricted to first-semester transfer students in Letters and Sciences.*	Seats (Total: 20) LEF 1201	
0104	Kendyl Oliver Tu 11:00am - 12:15pm *Restricted to first-semester transfer students in the School of Public Health.*	Seats (Total: 20) SPH 0225	
0201	JV Sapinoso Th 2:00pm - 3:15pm *Restricted to first-semester transfer students in Letters and Sciences.*	Seats (Total: 20) JMZ 1215	
0301	Keanu Stovall W 3:00pm - 4:15pm *Restricted to first-semester transfer students in Letters and Sciences.*	Seats (Total: 20) KNI 1105	

UNIV108 **Business Exploration Series Colloquium**

For students interested in pursuing a business career. Students learn the fundamentals of career development and what the internship/job search process entails.

For students interested in pursuing a business career. Students learn the fundamentals of career development and what the internship/job search process entails.

FC01	Lisa Scheeler, Kelly Marbury M 4:30pm - 5:20pm W 4:30pm - 5:20pm *Restricted to students in Freshmen Connection.*	Seats (Total: 22) ESJ 2309 HBK 1112	Discussion
FC02	Alana Ebert-Zavos, Kelly Marbury M 4:30pm - 5:20pm W 4:30pm - 5:20pm *Restricted to students in Freshmen Connection.*	Seats (Total: 22) ESJ 2309 JMZ 0122	Discussion

UNIV110 **Grand Challenges of Our Time**

(Perm req)

Restriction: Must have Freshmen standing.

An overview of the issues of our time, including COVID-19, Black Lives Matter, Climate Change and Voting.

Contact department for information to register for this course.

UNIV269 **Connecting Across Cultures**

An examination of culture to guide study abroad students through the stages of cross cultural adjustment and to promote cultural competency by providing the motivation, knowledge and skills necessary to work with diverse individuals and teams.

Contact department for information to register for this course.

UNIV269A **Connecting Across Cultures; Cultural Realities of Spain**

An examination of culture to guide study abroad students through the stages of cross cultural adjustment and to promote cultural competency by providing the motivation, knowledge and skills necessary to work with diverse individuals and teams.

Contact department for information to register for this course.

UNIV362 **Designing Your Life after College**

Restriction: Must have earned a minimum of 60 credits.

Helps students anticipate and prepare for changes in finances, social life, health, and career dynamics they are likely to experience as they transition from college to working full-time. It focuses on understanding what resources students have as they enter the workforce as critical for navigating post-graduation changes successfully. It offers an overview of financial, risk management and professional development approaches to increase students' confidence regarding post-graduation decisions; in addition, it develops their creative problem solving and reflection skills to help them align the outcomes of their decisions with their values.

Click here for more information on the Designing Your Life After College including Faculty & Speaker biographies.

0101	Ann Holmes, Dave Kenny Tu 4:30pm - 6:30pm	Seats (Total: 20) KEY 0102
0102	Joseph Fileppi, Gerry Strumpf Tu 4:30pm - 6:30pm	Seats (Total: 20) TLF 1103
0103	Kenneth Kokason, Gabe Pickett Tu 4:30pm - 6:30pm	Seats (Total: 20) SYM 0215
0105	Parker Kleb, Richard Blackman Tu 4:30pm - 6:30pm	Seats (Total: 20) TWS 0205
0106	Selah Thom, Chad Nazworth, Tori Shay Tu 4:30pm - 6:30pm	Seats (Total: 20) SKN 1115

UNIV389 **Special Topics in Undergraduate Studies**

Courses will focus on interdisciplinary topics and will be planned in cooperation with Undergraduate Studies.

Contact department for information to register for this course.

UNIV389J **Special Topics in Undergraduate Studies; Federal Independent Study Projects**

(Perm req)

Courses will focus on interdisciplinary topics and will be planned in cooperation with Undergraduate Studies.

Prerequisite: Permission of instructor.

0101	Joan Burton, Sabrina Labold Class time/details on ELMs	Seats (Total: 25) ONLINE	
0201	Joan Burton, Sabrina Labold Class time/details on ELMs	Seats (Total: 25) ONLINE	

UNIV399 **Experiential Learning in Undergraduate Studies**

(Perm req)

Experiential learning offered in conjunction with certain designated Office of Undergraduate Studies programs.

0101	Joan Burton, Sabrina Labold Class time/details on ELMs	Seats (Total: 10) ONLINE	
0201	Joan Burton, Sabrina Labold Class time/details on ELMs	Seats (Total: 10) ONLINE	

URSP Urban Studies and Planning Fall 2023

URSP250 **The Sustainable City: Exploring Opportunities and Challanges**

An exploration, through an interdisciplinary approach, of a number of issues related to making cities more sustainable in terms of environmental protection, economic opportunity, and social justice. The course assist students to develop skills in critical analysis and systems thinking and to use those skills in analyzing sustainability related problems and potential solutions, and to expand students' understanding of the political implications of crafting and moving towards a sustainable urban future.

0101	Kevin Nelson M 9:00am - 10:15am W 9:00am - 10:15am	Seats (Total: 26) ARC 0204 ARC 1105	 Discussion
0102	Kevin Nelson M 9:00am - 10:15am W 9:00am - 10:15am	Seats (Total: 26) ARC 0204 HBK 0105	 Discussion

0103	Kevin Nelson M 9:00am - 10:15am W 9:00am - 10:15am	Seats (Total: 26) ARC 0204 SQH 1105	 Discussion
0104	Kevin Nelson M 9:00am - 10:15am W 9:00am - 10:15am	Seats (Total: 26) ARC 0204 KNI 1103	 Discussion

URSP399I **Independent Study**

(Perm req)

Directed research and study of selected aspects of urban affairs.

Contact department for information to register for this course.

URSP601 **Research Methods**

(Perm req)

Recommended: An undergraduate-level statistics course; and familiarity with Microsoft Excel. Formerly: URBS601.

Use of measurement, statistics, quantitative analysis, and micro-computers in urban studies and planning.

0101	Chengri Ding W 4:00pm - 6:40pm	Seats (Total: 20) JMZ 0125

URSP603 **Land Use Planning: Concepts and Techniques**

(Perm req)

Credit only granted for: URSP603, URBS680, or URBS603. Formerly: URBS603.

Land use concepts and definitions: legal context for planning; markets and planning; planning for housing; community services, employment, utilities, and transportation; zoning; subdivision regulations; growth management; plan implementation.

0101	Dawn Jourdan Th 1:00pm - 3:40pm	Seats (Total: 20) PKT 1112V

URSP605 **Planning History and Theory**

(Perm req)

Examination of key, selected major events and issues in U.S. planning history and the development of the [planning profession; exploration of major themes in planning theory and practical applications of them; and analysis of the relationship of history and theory.

0101	Ariel Bierbaum M 4:00pm - 6:40pm	Seats (Total: 25) HJP 2217

URSP606 **Planning Economics**

(Perm req)

Restriction: Must not have completed URSP630. Credit only granted for: URSP606, URBS606, or URBS630. Formerly: URBS606.

Resource allocation in a market economy, the nature of market failures, and the justifications for public sector intervention. The limits and possibilities for planning in a market economy.

0101	Chengri Ding M 4:00pm - 6:40pm	Seats (Total: 15) ASY 3217

URSP688F **Recent Developments in Urban Studies; Public Transportation Planning**

(Perm req)

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Hiroyuki Iseki Th 7:00pm - 9:40pm	Seats (Total: 12) PKT 1112V

URSP688I **Recent Developments in Urban Studies; The Comprehensive Plan**

(Perm req)

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	David Rouse M 7:00pm - 9:40pm	Seats (Total: 15) ARC 1119

URSP688L **Recent Developments in Urban Studies; Planning Technology**

(Perm req)

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

An introduction to technologies that are vital for contemporary planners. Whether planners work at the local, state, or federal level, for-profit or non-profit, urban or rural, or with targeted neighborhoods or regional entities, the necessity for planners to, at a minimum, understand technologies is paramount. These technologies are used to plan, develop, manage, and analyze geographic areas and their respective populations. Given the past, present, and assuredly future ubiquity of Geographic Information Systems (GIS), this course's major focus will be on developing analytical and visual GIS skills. Parallel to acquiring initial GIS skills using the most current and widespread software platforms for GIS, students will employ real-life 'hands-on' experience alongside instruction for analysis and visualization both in the static/desktop environments as well as in more dynamic/web environments.

0101	Andrew Bernish	Seats (Total: 20)
	Tu 7:00pm - 9:40pm	ONLINE

URSP688Z **Recent Developments in Urban Studies; Planning & Design in the Multicultural Metropolis**

(Perm req)

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Willow Lung Amam	Seats (Total: 16)
	Th 4:00pm - 6:40pm	ARC 1119

URSP708 **Community Planning Studio**

(Perm req)

The Community Planning Studio is a "capstone" course intended to provide students with an opportunity to apply their knowledge and skills to analyze current, pressing planning issues, in a selected community and to produce a report containing recommendations for addressing those issues. In essence, students act as a consulting team for a community client.

0101	Clara Irazabal Zurita	Seats (Total: 16)
	TuTh 4:00pm - 6:40pm	PKT 1112V

URSP709 **Field Instruction**

Students will satisfy a 300-hour internship (20 hours for 15 weeks during the spring, 25 hours a week for 12 weeks during the summer). Suitable internships are approved by the Internship Coordinator or Instructor; they involve a significant amount of planning work (preferably in the student's are of interest) and provide an appropriate on-site supervisor. The Internship Coordinator will assist students in finding a suitable internship, but the ultimate responsibility rests with each student. Whether the internship is paid or not is a matter to be worked out between the student and the organization.

0101	Casey Dawkins	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

0102	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE
1001	Gerrit Knaap Class time/details on ELMs	Seats (Total: 20) ONLINE
1201	Chengri Ding Class time/details on ELMs	Seats (Total: 20) ONLINE
1401	Marccus Hendricks Class time/details on ELMs	Seats (Total: 20) ONLINE
1501	Ariel Bierbaum Class time/details on ELMs	Seats (Total: 20) ONLINE
1601	Hiroyuki Iseki Class time/details on ELMs	Seats (Total: 20) ONLINE
1701	Instructor: TBA Class time/details on ELMs	Seats (Total: 20) ONLINE
1801	Instructor: TBA Class time/details on ELMs	Seats (Total: 20) ONLINE
2103	Willow Lung Amam Class time/details on ELMs	Seats (Total: 20) ONLINE
2107	Clara Irazabal Zurita Class time/details on ELMs	Seats (Total: 20) ONLINE

URSP788 **Independent Study in Urban Studies and Planning**

(Perm req)

Directed research and study of selected aspects of urban affairs.

Contact department for information to register for this course.

URSP798 **Readings in Urban Studies and Planning**

(Perm req)

Directed readings in selected aspects of urban affairs and planning.

Contact department for information to register for this course.

URSP799 **Master's Thesis Research**

Contact department for information to register for this course.

URSP804 **Advanced Planning Theory**

Relations between theory and practice in planning. Ways of developing and using knowledge in collective action. Challenges to organizing for planning, finding knowledge useful for planning and balancing social attachments with free inquiry.

0101	Casey Dawkins	Seats (Total: 15)
	Tu 1:00pm - 3:40pm	ARC 1125

URSP810 **Contemporary Metropolitan Issues**

Restriction: Must be in Urban and Regional Planning and Design (Doctoral) program.

Introduces Ph.D. students to current metropolitan issues. Focus is on the historical development of the issue, problem definition, methodological approaches to its study, methodological dilemmas, and the ways that different conclusions are translated into policy. Topics vary from semester to semester but include such topics as the spatial mismatch hpothesis, the impact of urban design and form on travel behavior, the impact of technology on urban form, the justification for historic preservation, and sustainable development.

0101	Gerrit Knaap	Seats (Total: 10)
	M 1:00pm - 3:40pm	PKT 1112V

URSP898 **Pre-Candidacy Research**

Selected topics in Urban Studies and Planning. Topics will vary with the instructor.

Contact department for information to register for this course.

URSP899 **Doctoral Dissertation Research**

(Perm req)

This course is a required course for the Ph.D program in Urban and Regional Planning and Design.

Contact department for information to register for this course.

USLT Latina/o Studies Fall 2023

Please visit http://amst.umd.edu/programs/course/ for more course information.

USLT201 **U.S. Latina/o Studies I: An Historical Overview to the 1960's**

Interdisciplinary course focusing on demographics, terminology and social constructs of race, class, ethnicity, indigeneity, gender, and sexuality associated with the historical and political roots of US Latinidades. Examines the formation, evolution an adaptation of US Latina/o communities as critical field of inquiry.

0101	Robert Chester	Seats (Total: 25)
	TuTh 9:30am - 10:45am	TWS 0134

USLT328D **Special Topics in Latino/a Studies; Perspectives on Identity and Culture; Detention, Deportation and Displacement**

Special Topics in Latino/a Studies

Cross-listed with USLT328D. Credit only granted for USLT328D or AMST328D.

0101	Perla Guerrero	Seats (Total: 25)
	MW 3:00pm - 4:15pm	TWS 0134

USLT369A **Special Topics in Study Abroad III; Thinking in Andalusian: The Antonio Machado Family of Seville**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

USLT498D **US Latina/o Studies: Special Topics; Central Americans and the United States: Culture, Politics, and Community**

Specific content to be announced when courses are offered.

Cross-listed with AMST498C. Credit only granted for AMST498C or USLT498D. With attention to history, memory, politics, and culture, explores the relationships, conflicts, and exchanges of people and power between the United States and the Central American isthmus. Through literature, feature films, documentary films, theatre, poetry, and other mediums, the course investigates the role of the US government and military, as well as US corporate interests and US-backed dictatorships, in the culture, politics, and economy of nations including El Salvador, Nicaragua, Guatemala, and Honduras.

0101	Robert Chester	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 0134

USLT498E **US Latina/o Studies: Special Topics; African American and Latino Social, Cultural and Political Relations: 1940 to Present**

Specific content to be announced when courses are offered.

Cross-listed with AASP498O. Credit granted for USLT498E or AASP498O. An examination of the social, cultural, and political relationships between African American and Latino/a/x communities. In doing so, we will explore identity conundrums such as what constitutes a Latino/a/x. Who is African American? This nation has rarely seen two groups often lumped together spatially and socially with a rich history of working together towards progress, so divided and contentious. We will also through the analysis of trends look to find points of mutual concern and possible convergence and political coalition. In this course, it will be necessary to examine residential patterns and segregation, as well as learn about Latin American political and racial formation. We also will examine Afro-latinidad, which complicates the sociopolitical landscape and relationship between African American and Latinx communities.

0101	Jason Nichols	Seats (Total: 30)
	W 4:00pm - 6:30pm	TYD 0102

USLT498R **US Latina/o Studies: Special Topics; Revolutions and Diasporas**

Specific content to be announced when courses are offered.

Cross-listed with AMST498B. Credit granted for USLT498R or AMST498B. This course investigates how revolutions in Latin America influenced the history of US immigration, refugee, and asylum policies and how they changed US history, culture, experience, geography, politics and the future.

0101	Robert Chester	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	TWS 0134

VMSC Veterinary Medical Sciences Fall 2023

VMSC610 **Recombinant Viral Vectors**

A comprehensive presentation of information on the molecular biology of the most relevent viral vectors developed to date and give insight on vector contruction, purification and utilization. Also intended for students in virology and related fields as well as to those interested in the application of viral vectors to basic research.

0101	George Belov	Seats (Total: 10)
	Contact instructor or department for details.	

VMSC670 **Molecular Epidemiology of Infectious Diseases**

Prerequisite: Students planning to take this course are expected to have had some backgrounds in infectious diseases and molecular biology. Cross-listed with: EPIB670.

Molecular epidemiology is a discipline that uses molecular microbiology tools to study the distribution and determinants of diseases in human and animal populations. This course will provide a comprehensive overview and detailed discussion of the core molecular approaches and recent technological advances that are and can be used to investigate the etiology, transmission, and control of infectious diseases in veterinary medicine and public health. Theoretical and practical aspects of various molecular biology methods will be discussed in the context of epidemiological studies of infectious diseases including both bacterial and viral infections of veterinary and zoonotic significance. Lecture topics will cover the principles and application of various molecular techniques to problems of infectious diseases; population and evolutionary genetics of pathogenic microorganisms; data analysis and interpretation. Lecture materials will also be supported with practical data analysis, literature review discussions, which will be student-driven that will critique relevant manuscripts via group discussions in the classroom.

0101	Mostafa Ghanem	Seats (Total: 20)
	Tu 10:00am - 11:55am	GVC 1131

VMSC698 **One Health Seminar**

"One Health" is an approach that recognizes that health of people is closely connected to health of animals and our shared environment. Outstanding leaders in the field will present ideas for analysis and discussion among class members. Topics will include presentation and discussion of scientific publications, current topics, and new methodologies.

Class will meet in 1216 Gudelsky Building.

0101	Jaekeun Park Th 11:00am - 12:00pm	Seats (Total: 20) GVC 1216

VMSC699 **Special Problems in Veterinary Medical Sciences**

Independent study of a specific problem related to veterinary medicine such as a disease outbreak, application of a new diagnostic test or a risk analysis related to animal health. Targeted at veterinary medicine (DVM) students and other graduate students with a background in veterinary medicine.

Contact department for information to register for this course.

VMSC758 **Journal Club in Comparative Biomedical Sciences**

The Journal Club in Comparative Biomedical Sciences is a graduate-level student-driven course. Each student will pick a peer-reviewed journal article for individual presentation and group discussion. The articles will cover a wide variety of biomedical science topics based on student and group interests.

0101	Seth Dickey M 11:00am - 12:00pm	Seats (Total: 10) Location: TBA

VMSC760 **Immunology of Infectious Diseases**

An advanced graduate level course that focuses on the cutting-edge knowledge of immunity and recent research breakthroughs in the interactions between host immune system and infectious pathogen, and vaccine development

0101	Meiqing Shi TuTh 1:45pm - 3:00pm	Seats (Total: 25) Location: TBA

VMSC780 **Parasites of Medical and Veterinary Importance**

Restriction: Permission of instructor.

Provides students with the basic knowledge of parasites as well as research advancement in important parasites of humans and animals. Particular attention will be given to parasite biology, pathogenesis, and host responses to parasitic infection. A selection of parasites of medical and veterinary importance will be specifically covered with emphasis on recent research breakthroughs in the field.

Contact department for information to register for this course.

VMSC799 **Thesis Research**
Contact department for information to register for this course.

VMSC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

VMSC899 **Dissertation Research**

(Perm req)

Contact department for information to register for this course.

WEID Words of Engagement Intergroup Dialogue Program — Fall 2023

WEID139B **Navigating Social Identity Difference through Intergroup Dialogue; Race, Gender, or Socioeconomic Status**

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

0101	Peter DeCrescenzo, Jazmin Pichardo, Sarah Scriven, Kiyah McDermid, Baili Park, Adam Klager, Faith Sears, Rolonda Payne, Imani Burwell-Finch **Meets August 28, 2023 - October 10, 2023** Tu 5:30pm - 7:30pm	Seats (Total: 45) Location: TBA

WEID139I **Navigating Social Identity Difference through Intergroup Dialogue; Religion and Spirituality, or Size and Appearance**

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

0201	Jazmin Pichardo, Luis Valderrama, Brandon Harris, Sarah Scriven, Diksha Bali, Laura Widener **Meets October 18, 2023 - December 11, 2023** M 5:30pm - 7:30pm	Seats (Total: 32) Location: TBA

WEID139L **Navigating Social Identity Difference through Intergroup Dialogue; Race, Gender, or Citizenship**

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

0201	Jazmin Pichardo, Imani Burwell-Finch, Sarah Scriven, Laura Widener, Timothy Farrell, Ava Sambriski **Meets October 18, 2023 - December 11, 2023** W 5:30pm - 7:30pm	Seats (Total: 45) Location: TBA	

WGSS Women, Gender, and Sexuality Studies Fall 2023

WGSS105 **Introduction to Disability Studies**

This course will introduce students to theories of disability justice as they intersect with feminist and antiracist struggles. Tracing the emergence of the concept of disability alongside the rise of racial knowledge since the 19th century, we will consider how disability activists have responded to ableism by developing art, political strategies, and subcultures that promote a more just society built for a wider variety of human bodies. Students will learn about the moral, medical, social, and ecological models of disability; explore varied disability experiences relating to mental illness, chronic disease, and sensory and mobility impairments; debate ethical questions concerning eugenics, selective abortion, health care access, and medical technologies; and analyze the work of disabled artists and activists of color. Students will also discuss principles of universal design which seek to make classrooms more just and collaborative. In order to balance accessibility and community building, the course has been designed for synchronous online instruction complemented by optional in-person sessions.

0101	Neel Ahuja MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) ONLINE ONLINE	 Discussion
0102	Neel Ahuja MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 20) ONLINE ONLINE	 Discussion
0103	Neel Ahuja MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 20) ONLINE ONLINE	 Discussion

0104	Neel Ahuja MW 11:00am - 11:50am F 2:00pm - 2:50pm	Seats (Total: 20) ONLINE ONLINE	 Discussion

WGSS200 **Introduction to WGSS: Gender, Power, and Society**

Credit only granted for: WMST200 or WGSS200. Formerly: WMST200.

Examines constructions of race, class, sexuality, ability, and gender relations from a social science multi-disciplinary perspective. The course interrogates the ways that systems of hierarchy and privilege are created, enforced, and intersect through the language of race, class, sexuality, and national belonging. The course will provide students with the skills to examine how systems of power manifest in areas such as poverty, division of labor, health disparities, policing, violence. In addition to examining the impact of systems of power, students will reflect on their own location within the exercise of racialized, and gendered power relations. This course encourages students to understand and critique these systems both personally and politically.

0101	Rahma Haji Class time/details on ELMs	Seats (Total: 30) ONLINE	
0201	Taylor York Class time/details on ELMs	Seats (Total: 30) ONLINE	
0301	Damien Hagen Class time/details on ELMs	Seats (Total: 30) ONLINE	

WGSS250 **Introduction to WGSS: Art and Culture**

Credit only granted for: WMST250 or WGSS250. Formerly: WMST250.

Provides students with a critical introduction to the ways that art and art activism have served as a conduit to understanding and challenging systems of inequity and practices of normativity. Interrogating the categories of gender, sexuality, race, class, ability, the course will provide students with an examination of how artists have responded to pressing social justice issues of their eras. While the course centers visual art, students will also engage genres such as music, plays, literature, digital and performance art as arenas of social change.

0101	Michelle Rowley MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 20) SQH 1120 HBK 0103	 Discussion
0102	Michelle Rowley MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) SQH 1120 HBK 0103	 Discussion

0103	Michelle Rowley MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 20) SQH 1120 HBK 0103	Discussion
0104	Michelle Rowley MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 20) SQH 1120 SQH 1111	Discussion
0201	Jaime Madden MW 3:00pm - 3:50pm F 12:00pm - 12:50pm	Seats (Total: 20) BPS 1243 SQH 1121	Discussion
0202	Jaime Madden MW 3:00pm - 3:50pm F 1:00pm - 1:50pm	Seats (Total: 20) BPS 1243 SQH 1121	Discussion
0203	Jaime Madden MW 3:00pm - 3:50pm F 2:00pm - 2:50pm	Seats (Total: 20) BPS 1243 SQH 1121	Discussion
0204	Jaime Madden MW 3:00pm - 3:50pm F 3:00pm - 3:50pm	Seats (Total: 20) BPS 1243 SQH 1121	Discussion
FC01	Jaime Madden MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 17) LEF 1201	

WGSS255 **Reading Women Writing**

Cross-listed with: ENGL250. Credit only granted for: ENGL250, WMST255 or WGSS255. Formerly: WMST255.

Explores literary and cultural expressions by women and their receptions within a range of historical periods and genres. Topics such as what does a woman need in order to write, what role does gender play in the production, consumption, and interpretation of texts, and to what extent do women comprise a distinct literary subculture. Interpretation of texts will be guided by feminist and gender theory, ways of reading that have emerged as important to literary studies over the last four decades.

0101	Danuta Hinc TuTh 9:30am - 10:45am	Seats (Total: 30) TWS 0221	

WGSS263 **Introduction to Black Women's Studies**

Cross-listed with: AASP263. Credit only granted for: WMST263, AASP298I, WGSS263 or AASP263. Formerly: WMST263.

Interdisciplinary exploration of Black women, culture and society in the United States. Drawn primarily from the social sciences and history with complementary material from literature and the arts.

0101	Elsa Barkley Brown	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	ASY 3207

WGSS265 **Constructions of Manhood and Womanhood in the Black Community**

Cross-listed with: AASP265. Credit only granted for: WMST265, AASP298B, WGSS265 or AASP265. Formerly: WMST265.

Investigates the ways that African Americans are represented and constructed in public and private spheres and explores the social constructions and representations of Black manhood and womanhood from various disciplinary perspectives.

0101	Sharon Harley	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	SQH 1117

WGSS269G **Special Topics in Study Abroad II; Topics on Gender Studies**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WGSS269I **Special Topics in Study Abroad II; Social Problems: Women's Issues (In Indian Society)**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WGSS269W **Special Topics in Study Abroad II; Social Problems: Women's Issues Field Study**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WGSS275 **World Literature by Women**

Cross-listed with: CMLT275. Credit only granted for: WMST275, CMLT275 or WGSS275. Formerly: WMST275.

Comparative study of selected works by women writers of several countries, exploring points of intersection and divergence in women's literary representations.

0201	Ariana Nash	Seats (Total: 30)
	MW 2:00pm - 3:15pm	TWS 0214

WGSS277 **Careers in the Toy Industry: Gender, Trends, and Social Impact**

Cross-listed with: ARHU277. Credit only granted for: WGSS277 or ARHU277.

Exposes students to diverse career options within the $114 billion global toy industry, and will explore the toy industry's relationships to gender and other areas of social impact. Students will learn how careers in play shape our society and about the countless careers in this fun, dynamic field for individuals with diverse, transferable skills. This class will share how emerging trends in content, technology, and approaches to identity and stereotypes shape the industry, its workforce, and its social impact. From Marketing, Accounting, Advocacy and Communications, to Design, Engineering, Law, Supply Chain and Entrepreneurship this is a constantly evolving industry that has the power to shape minds and our world through the power of play.

0101	Neel Ahuja, Genna Rosenberg W 4:00pm - 4:50pm	Seats (Total: 40) ONLINE

WGSS290 **Bodies in Contention**

Credit only granted for: WMST298D or WGSS290. Formerly: WMST298D.

Explores the contributions of feminist scholarship in framing and resolving contemporary controversies concerning gendered bodies. It includes the ways in which knowledge about the human body has been shaped by cultural ideas of gender, race, sexuality and ability.

0101	Jessica Mathiason TuTh 11:00am - 12:15pm	Seats (Total: 32) SQH 1121
0201	Jessica Mathiason TuTh 12:30pm - 1:45pm	Seats (Total: 32) SQH 1121

WGSS301 **Introduction to Research in Gender, Race, and Queer Studies**

(Perm req)

Restriction: Permission of the Harriet Tubman Department of Women, Gender, and Sexuality Studies; Must be enrolled in a Harriet Tubman Department of Women, Gender, and Sexuality Studies program. Credit only granted for: WMST301 or WGSS301. Formerly: WMST301.

Primarily a research skills-building course, focusing especially on interdisciplinary approaches to research. Encompasses basic library skills, conceptualizing a research question. The course is not designed to teach a specific research method but rather to as an introduction to a range of research methods commonly employed in feminist, critical race, and queer studies with some opportunity to begin to apply them. Considers the ethical dilemmas and political implications embedded in research projects.

0101	Elsa Barkley Brown Tu 2:00pm - 4:45pm	Seats (Total: 15) LEF 1221

WGSS302 **Feminist, Critical Race, and Queer Theories**

Prerequisite: 6 credits in LGBT, WMST, WGSS or courses that are cross-listed with these. Credit only granted for: WMST302, WGSS302 or WMST400. Formerly: WMST302.

Introduces students to some of the major concepts in feminist, critical race, and queer theories. It examines the questions: What is theory? What forms does theory take? What is the relationship between theory and practice? What is the role of theory in political and social action? In art? In personal life? What does it mean to do theory?

0101	Sydney Lewis MW 10:00am - 11:15am	Seats (Total: 30) SQH 2120

WGSS314 **Black Women in United States History**

Restriction: Sophomore standing or higher. Cross-listed with: AASP313. Credit only granted for: AASP313, WMST314 or WGSS314. Formerly: WMST314.

Black American women's history from slavery to the present. Focused on gaining a fuller understanding of the effect of race, class and gender on the life cycles and multiple roles of Black women as mothers, daughters, wives, workers and social-change agents.

For Fall 2020: Also offered as HIST329E. Credit granted for AASP313, HIST329E, or WMST314.

0101	Elsa Barkley Brown Th 4:00pm - 6:30pm	Seats (Total: 40) KEY 0126

WGSS319P **Workshops in Gender, Race, and Queer Studies; Pleasure, Intimacy, Violence**

Topics will change each semester but all workshops will be designed to have students think transdisciplinarily and interdisciplinarily about a specific topic or issue and to understand how differing approaches shape knowledge. Assignments within the workshops are aimed at students developing their skills in forms of presentation beyond the written essay, e.g. oral argument, digital or creative projects. Collaborative work must be central to all workshop courses; these collaborative activities do not preclude the possibility of individual research/writing assignments but the Workshops should emphasize conversation, debate, collaboration, and critique more so than the individually authored essay.

0101	Zenzele Isoke TuTh 9:30am - 10:45am	Seats (Total: 30) SQH 2120

WGSS336 **Psychology of Women**

Prerequisite: PSYC100. Cross-listed with: PSYC336. Credit only granted for: PSYC336, WMST336 or WGSS 336. Formerly: WMST336.

A study of the biology, life span development, socialization, personality, mental health, and special issues of women.

0101	Monica Kearney MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 110) PHY 1410 ONLINE

WGSS358 **Undergraduate Teaching Assistantship**

(Perm req)

Students work under the supervision of a faculty mentor to assist with an undergraduate LGBT or WGSS course while also becoming conversant in feminist, critical race, and queer pedagogical debates and approaches.

Restriction: Permission of ARHU-Women's Studies department. Repeatable to 9 credits. Students work under the supervision of a faculty mentor to assist with an undergraduate LGBT or WMST course while also becoming conversant in feminist, critical race, and queer pedagogical debates and approaches.

Contact department for information to register for this course.

WGSS368 **Undergraduate WGSS Internship**

(Perm req)

Undergraduate Internship in a position related to women, gender, and sexuality studies and overseen by a member of the WGSS faculty.

Restriction: Permission of ARHU-Women's Studies department; and must have Learning Proposal approved by Women's Studies Academic Advisor; and junior standing or higher. Repeatable to 9 credits if content differs. Formerly: WMST386. Undergraduate Internship in a position related to Women's Studies and overseen by a member of the WMST faculty.

Contact department for information to register for this course.

WGSS369G **Special Topics in Study Abroad III; Gender and Post Socialist Transformation in Central Europe**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WGSS378 **Undergraduate Research and Creative Works Assistantship**

(Perm req)

The Undergraduate Research Assistant provides an opportunity to develop a deep understanding of specific research methods and topics while involving the student in a professional role that requires ethical responsibility. The precise syllabus for the URA will be personalized to the student's interests and abilities, as well as to the specific research project and the Faculty Mentor's expectations. The student will meet with the Faculty Mentor prior to enrolling for a URA in order to determine the responsibilities and learning goals for the semester.

Contact department for information to register for this course.

WGSS444 **Feminist Critical Theory**

Prerequisite: WMST200, WGSS200, WMST250, WGSS250, or ENGL250. Cross-listed with: ENGL444. Credit only granted for: ENGL444, WMST444 or WGSS444. Formerly: WMST444.

Issues in contemporary feminist thought that have particular relevance to textual studies, such as theories of language, literature, culture, interpretation, and identity.

Contact department for information to register for this course.

WGSS452 **Women in the Media**

Cross-listed with: JOUR452. Credit only granted for: JOUR452, WMST452 or WGSS452. Formerly: WMST 452.

Participation and portrayal of women in the mass media from colonial to contemporary times.

0101	Gea Ujcic	Seats (Total: 30)
	TuTh 9:30am - 10:45am	KNI 1105

WGSS488G **Senior Seminar; Transnational Feminisms**

Seminar for advanced majors in women's studies or other students with appropriate preparation. Interdisciplinary topics will vary each semester.

What constitutes transnational feminisms and how does it relate to or differ from global or international feminisms? This course will engage with contemporary feminist debates on racism, casteism, right wing moral panics around sexual and gender identities and settler colonialism to de-exceptionalize the US as the center of feminist knowledge production.

0101	Sayan Bhattacharya	Seats (Total: 15)
	M 3:00pm - 5:30pm	SQH 1125

WGSS489 **Individual Research in Gender, Race and Queer Studies**

Allows students who wish to continue the research they began in WMST487 or WGSS487 to do so under the guidance of an individual faculty mentor. Each student taking this class will develop an individual syllabus based on the project on which they are working, with the goal of developing a work of scholarship specific to their interests that can serve as an entry point for graduate study or professional work.

Contact department for information to register for this course.

WGSS489A **Individual Research in Gender, Race and Queer Studies; WGSS Honors Thesis Writing**

Allows students who wish to continue the research they began in WMST487 or WGSS487 to do so under the guidance of an individual faculty mentor. Each student taking this class will develop an individual syllabus based on the project on which they are working, with the goal of developing a work of scholarship specific to their interests that can serve as an entry point for graduate study or professional work.

Contact department for information to register for this course.

WGSS497 **Professional Development**

Prerequisite: 12 credits in LGBT, WMST or WGSS courses. Restriction: Must have completed a minimum of 75 credits. Credit only granted for: WMST497 or WGSS497. Formerly: WMST497.

To assist students in thinking about the next step post-undergraduate degree and to think long term about the importance of their WMST degree in lifelong career, personal, and political development. This course will provide students an opportunity to reflect upon where they are going beyond the B.A. and develop ways to communicate how their coursework and experiences at UMD have prepared them for the next step. The course will focus on the practicalities of resume writing, internship or job searches, etc. but also on the specific challenges/opportunities of translating interdisciplinary training to professional internship or beyond-the B.A. sites. Students may take this course in preparation for their internship (working to select an appropriate internship that can translate well to post-undergraduate aspirations) or they may take it post-internship as they determine their post-graduation steps.

0101	Sydney Lewis	Seats (Total: 15)
	F 10:00am - 11:15am	ONLINE

WGSS498A **Advanced Special Topics in Women, Gender, and Sexuality Studies; Community Interventions: Domestic Violence I**

Advanced study of a thematic topic in women, gender, and sexuality studies.

Restricted to Psychology or Women Studies majors only. Cross-listing with WGSS498A. Credit only granted for PSYC318D, WGSS498A, or WMST498A. Theories and researchrelated to domestic violence and interventions with abused womenwill bestudied, and students will think critically regarding ethical andmulticultural issues related to domestic violence. Community resources and strategies for ending domestic violence in the United States will be discussed.

0101	Karen O'Brien	Seats (Total: 35)
	MW 10:00am - 11:15am	HBK 0103

WGSS498K **Advanced Special Topics in Women, Gender, and Sexuality Studies; The Transnational Cinema of Ang Lee**

Advanced study of a thematic topic in women, gender, and sexuality studies.

Cross-listed with ARTH489L and CINE459L. Credit only granted for ARTH489L, CINE459L or WGSS498K. Students will examine how the award-winning director Ang Lee has been able to explore important issues of culture, gender, race, identity, and values across borders in a transnational world. Films to be studied are from a wide spectrum of genres and may include "The Wedding Banquet," "Sense and Sensibility," "The Ice Storm," "Crouching Tiger, Hidden Dragon," "Hulk," "Brokeback Mountain," "The Life of Pi," and "Gemini Man."

0101	Jason Kuo	Seats (Total: 20)
	W 3:00pm - 5:30pm	ASY 3215

WGSS498L **Advanced Special Topics in Women, Gender, and Sexuality Studies; Women in Israel**

Advanced study of a thematic topic in women, gender, and sexuality studies.

Contact department for information to register for this course.

WGSS498Y **Advanced Special Topics in Women, Gender, and Sexuality Studies; Dickinson, Erotics, Poetics, Biopics: Some (Queer) Ways We Read Poetry**

Advanced study of a thematic topic in women, gender, and sexuality studies.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Cross-listing with ENGL439D and LGBT448Y. Credit only granted for ENGL439D, LGBT448Y, WGSS498Y, or WMST498Y.

0101	Hillary Roegelein	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	ONLINE

WGSS499 **Independent Study**

(Perm req)

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member of the Women's Studies Department.

Contact department for information to register for this course.

WMST Women's Studies Fall 2023

WMST601 **Theoretical Foundations in Women, Gender, and Sexuality Studies**

(Perm req)

Prerequisite: WMST400 or WGSS302; or students who have taken courses with comparable content may contact the department. Restriction: Must be in the Women, Gender and Sexuality Studies doctoral or graduate certificate program. Credit only granted for: WMST601 or WGSS601. Formerly: WMST601.

Examines fundamental concepts in the interdisciplinary field of Women, Gender, and Sexuality Studies. Engages intersectionality as a critical analytic and set of responses to structural power and domination. Provides students with a theoretical foundation for understanding gender, race, and sexuality as analytic categories operating in transnational and global contexts and intersecting with other categories of difference.

0101	Alexis Lothian	Seats (Total: 12)
	Th 12:30pm - 3:00pm	SQH 4103

WMST618 **Feminist Pedagogy**

(Perm req)

Examines the higher education classroom from a feminist perspective through theory and analysis. Students are graduate teaching assistants with the Women's Studies department.

Prerequisite: permission of department. For WMST major onlys.

0101	Michelle Rowley	Seats (Total: 5)
	Contact instructor or department for details.	

WMST619 **Women, Gender, and Sexuality Studies Teaching Practicum**

(Perm req)

Provides WGSS graduate teaching assistants with ongoing regular faculty supervision during the semesters the students are teaching courses in the department.

Prerequisite: permission of department. For WMST majors only.

0101	Alexis Lothian M 1:00pm - 1:50pm	Seats (Total: 10) ONLINE
2001	Neel Ahuja Contact instructor or department for details.	Seats (Total: 3)

WMST628 **Women, Gender, and Sexuality Studies Colloquium**

(Perm req)

An intensive advanced exploration of current problems and issues in women, gender, and sexuality studies.

0101	Neda Atanasoski W 4:00pm - 5:45pm	Seats (Total: 12) SQH 4116

WMST698U **Special Topics in Women, Gender, and Sexuality Studies; Ungendering Blackness**

Advanced work in selected topics in Women, Gender, and Sexuality Studies

0101	Will Mosley M 4:00pm - 6:30pm	Seats (Total: 12) SQH 4116

WMST699 **Independent Study**

(Perm req)

Research and writing on specific readings on a topic selected by the student which is approved and supervised by a faculty member of the Harriet Tubman Department of Women, Gender, and Sexuality Studies.

Contact department for information to register for this course.

WMST709 **Directed Independent Reading for Major Field Exam**

(Perm req)

Directed reading in preparation for Major Field Exam. In consultation with their advisors, students identify, analyze, critique and synthesize material relevant to their major fields of inquiry. Grading will be based on combinations of oral performance in the bi-weekly meetings, production of annotated bibliographies and synthetic papers.

Contact department for information to register for this course.

WMST799 **Masters Thesis Research**

(Perm req)

Master's Thesis Research

Contact department for information to register for this course.

WMST898 **Pre-Candidacy Research**

(Perm req)

Pre-Candidacy Research

Contact department for information to register for this course.

WMST899 **Doctoral Dissertation Research**

(Perm req)

Doctoral Dissertation Research

Contact department for information to register for this course.